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aldwell Community C e
& Technical Institute

1983-84

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Caldwell Community College and Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary.

Students having questions not answered in this publication may obtain further information from the Student Development Office, Caldwell Community College and Technical Institute.

Caldwell Community College and Technical Institute does not discriminate against any person on grounds of race, color, religion, sex, national origin, handicap or political affiliation or belief.

Cover photo by Sherry Wrenn.

CALDWELL COMMUNITY COLLEGE AND TECHNICAL INSTITUTE

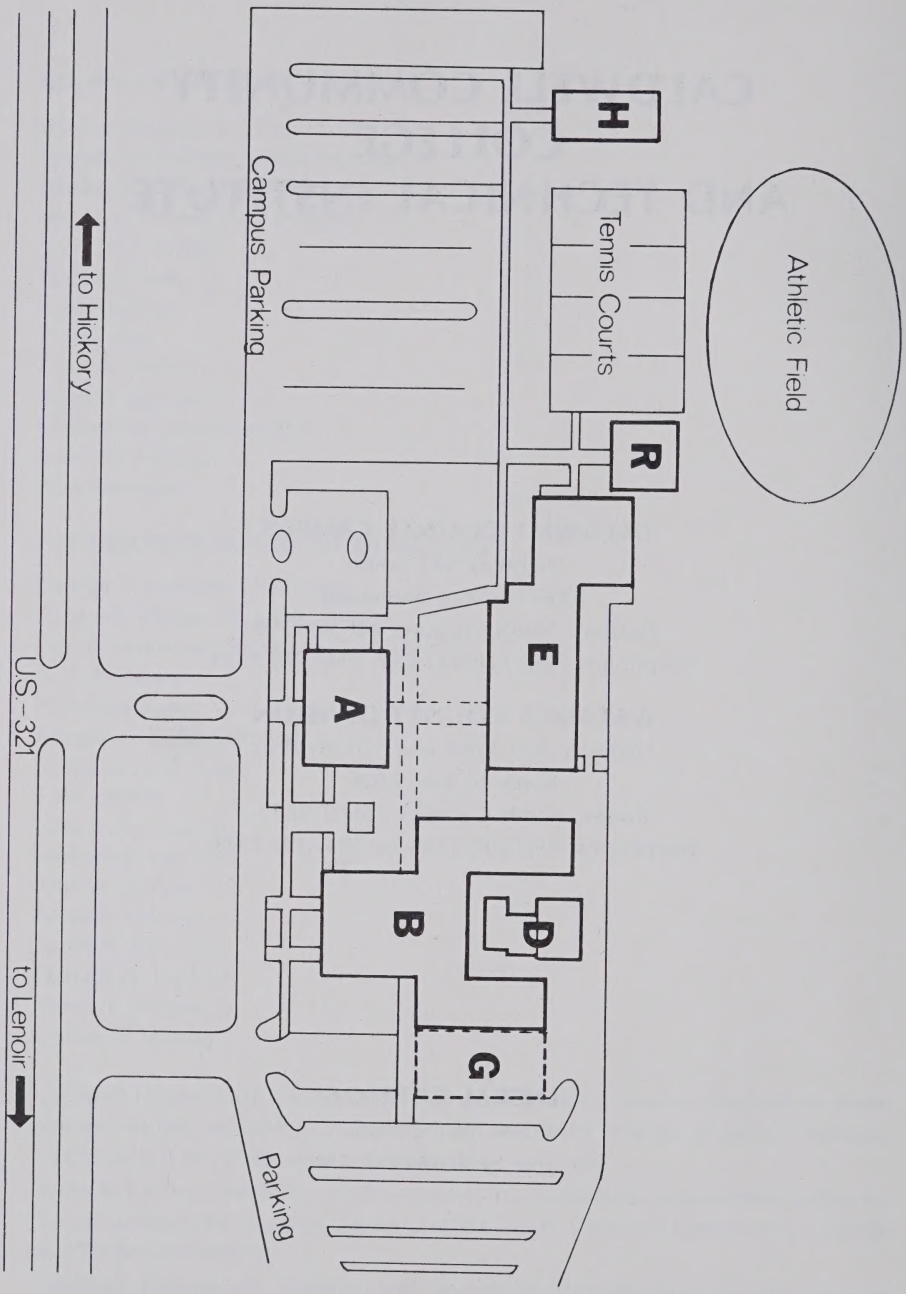
CALDWELL COUNTY CAMPUS
Highway 321 South
1000 Hickory Boulevard
Hudson, North Carolina 28638-1399
Telephones 704/728-4323 or 704/396-3311

WATAUGA COUNTY DIVISION
Highway 421 West and 105 By-Pass
Route 6, Box 240B
Boone, North Carolina 28607-9229
Telephones 704/297-2185 or 704/297-2186

GENERAL CATALOG

Volume XII, Number 1
Effective September 1, 1983

CAMPUS MAP


H
Athletic Field
Tennis Courts
R
Campus Parking
to Hickory
E
A
U.S.-321
B
D
G
to Lenoir
Parking

ACADEMIC CALENDAR 1983-84

FALL QUARTER

August 8 - August 26	Fall Short Term for Radiology Tech/ Nuclear Medicine
August 15 - August 26	Fall Short Term for Occupational Therapy Assistant
August 30, Tuesday	Registration, Boone Campus
August 31, September 1	Registration, Lenoir Campus
September 2, Friday	Faculty and Staff Orientation/Professional Development
September 7, Wednesday	Classes Begin
September 7, 8, 9	Late Registration
October 7, Friday	Last Day to Drop Course
November 7 - 11	Early Registration Week
November 18, 21, 22	Exams
November 22, Tuesday	Fall Quarter Ends
November 24, 25	Institution Holidays

WINTER QUARTER

November 28, Monday	Registration, Boone Campus
November 29, Tuesday	Registration, Lenoir Campus
December 1, Thursday	Classes Begin
December 1, 2, 5	Late Registration
December 20, Tuesday	Christmas Holidays Begin After Last Class
December 23, 26, 27, 28, 29, 30	Institution Holidays
January 2, Monday	Classes Resume
January 12, Thursday	Last Day to Drop Course
January 26, Thursday	Professional Development Day
February 13 - 17	Early Registration Week
February 24, 27, 28	Exams
February 28, Tuesday	Winter Quarter Ends

SPRING QUARTER

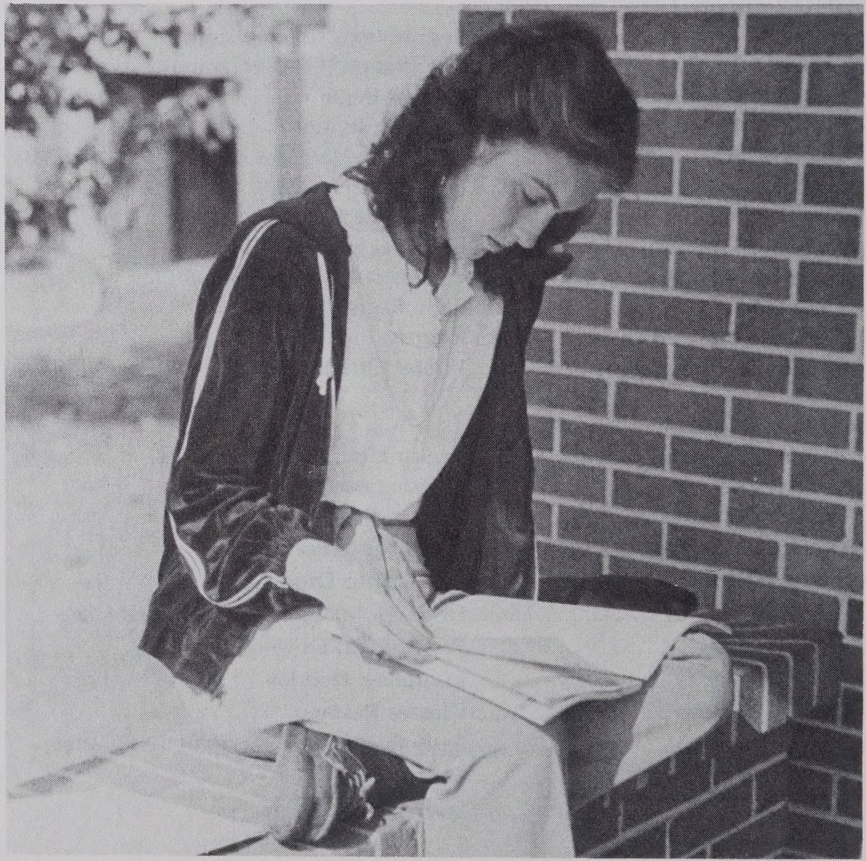
February 29, Wednesday	Registration, Boone Campus
March 1, Thursday	Registration, Lenoir Campus
March 5, Monday	Classes Begin
March 5, 6, 7	Late Registration
April 4, Wednesday	Last Day to Drop Course
April 19, Thursday	Easter Holidays Begin After Last Class
April 20, Friday	Professional Development Day
April 23, Monday	Institution Holiday
April 30, Monday	Classes Resume
May 14 - 18	Early Registration for Summer Quarter
May 24, 25, 28	Exams
May 28, Monday	Spring Quarter Ends

SUMMER QUARTER

May 30, Wednesday	Registration, Boone Campus
May 31, Thursday	Registration, Lenoir Campus
June 4, Monday	Classes Begin
June 4, 5, 6	Late Registration
June 29, Friday	Independence Day Holidays Begin After Last Class
July 5, Thursday	Classes Resume
July 11, Wednesday	Last Day to Drop Course
August 6 - 10	Early Registration for Fall Quarter
August 13, 14, 15	Exams
August 15, Wednesday	Summer Quarter Ends
August 17, Friday	Graduation

MINI-SESSIONS

June 11, Monday - June 29, Friday
July 5, Thursday - July 25, Wednesday
July 26, Thursday - August 15, Wednesday



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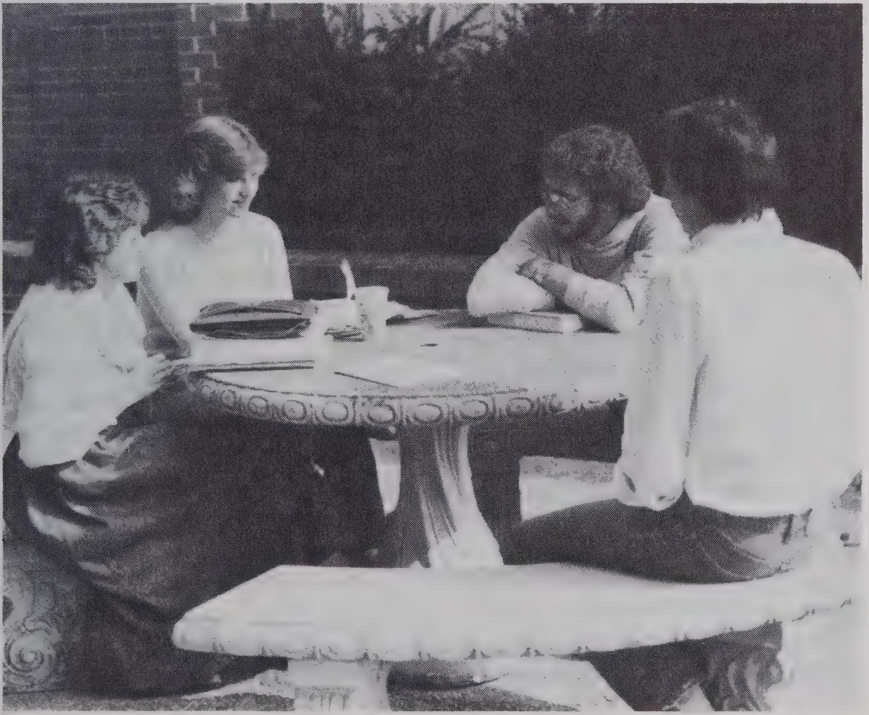


GENERAL INFORMATION

HISTORY OF THE COLLEGE

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

The 1979 General Assembly rewrote the Community College Act and authorized a new board for community colleges, effective January 1, 1981.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell County approved the college through a bond vote of $600,000 for the purchase of a site and construction of facilities and up to 5 cents tax authorization for operating the college. Final approval by the State Board of Education followed on April 2, 1964.

The first president was selected that fall and began work in November, 1964. A permanent site was selected for the institute in January, 1965. Selection of an architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970, Caldwell Technical Institute was authorized by the North Carolina General Assembly through the State Board of Education to offer college transfer courses. Subsequently, Caldwell Technical Institute changed its name to Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon on December 7, 1971. The local money was to match a federal grant of $799,306 under the Appalachian Region Act. This referendum was passed by more than a 2 to 1 majority. In 1973 the institution received $500,000 of state construction funds from an appropriation by the North Carolina General Assembly. These funds enabled the trustees to increase the size of the college by about 77,000 square feet. The new buildings were occupied during the 1974-75 school year.

In 1979 the Caldwell County Commissioners authorized an expenditure of $600,000 to match a proposed Appalachian Regional Grant of $400,000 to construct additional facilities. These new facilities were occupied in August 1982. The additional 19,000 square feet makes a total of 154,000 square feet of building space at the institution.

In September, 1973, Caldwell Community College and Technical Institute, Watauga Division was established to provide limited credit and more extensive noncredit offerings to the citizens of Watauga County in various locations throughout the county. Appalachian State University permits CCC & TI Watauga Division students to use the university's library facilities.

The institution has grown at a steady rate since its beginning in 1964. For the 1982-83 year, the college was funded for 1349 full-time equivalent (FTE) students in one-year diploma and two-year degree programs and 948 FTE in continuing education programs for a total full-time equivalent enrollment of 2297. To teach these students and provide the required support and other services, the institution employs some 132 full-time persons and approximately 550 part-time persons each year.

PURPOSE AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any adult desiring to learn. All students are offered the opportunity and are encouraged to develop their intellectual, social, occupational, civic, cultural, and physical potential. The college is committed to providing quality, inexpensive, continuing education opportunities to meet the needs of adults at facilities located within commuting distance.

In keeping with the general purpose of Caldwell Community College and Technical Institute, the board of trustees, the staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide the opportunity for individuals to complete elementary or secondary school by offering adult basic education and high school equivalency programs.

Provide a variety of one-year vocational, two-year technical, and two-year college transfer programs that reflect the changing needs of business, industry, and professional and public services.

Provide general interest courses that meet adult education and community service needs.

Provide guidance and counseling services to assist students in developing an understanding of themselves.

Provide cultural programs and educational services for community enrichment.

Provide assistance and information to stimulate interest in education throughout the community.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

The Watauga instruction facility and administrative offices are located at Highway 421 W. and 105 By-Pass in Boone, North Carolina.

ACCREDITATION

Caldwell Community College and Technical Institute is regionally accredited by the Southern Association of Colleges and Schools.

Diploma, associate in applied science, and associate in arts or science programs have been approved by the North Carolina Department of Community Colleges and the State Board of Community Colleges.

The radiologic technology program is accredited by the Council on Allied Health Education and Accreditation of the American Medical Association. The nursing program is approved by the North Carolina State Board of Nursing. The nuclear medicine program is accredited by the Joint Review Committee of Education in Nuclear Medicine Technology of the Council on Allied Health Education and Accreditation. The occupational therapy assistant program is approved by the American Occupational Therapy Association.

ADMISSIONS

GENERAL ADMISSIONS REQUIREMENTS

Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which that individual wishes to enroll. These requirements vary with the areas of study offered by the college.

Students wishing to enroll in a curriculum program at Caldwell Community College and Technical Institute should contact the student development office for application forms, interview appointments, and dates for placement testing.

All technical and college transfer programs require high school graduation or the equivalent. Students enrolled in the vocational programs must be 18 years of age or high school graduates.

Applicants to Caldwell Community College and Technical Institute should:

1. Secure application forms and make application for admission.
2. Request that a transcript of past high school and college work be submitted to the student development office.
3. Complete the required placement tests for specific programs.
4. Have an interview with a member of the student development department or a faculty advisor.

PLACEMENT INVENTORIES

English, math, and reading placement inventories are required for all college transfer and occupational degree programs. The reading placement inventory is required for all occupational diploma programs.

Satisfactory placement scores in reading, math, and English are required for admission to radiologic technology, nuclear medicine, nursing, occupational therapy assistant, and recreational leadership programs.

Cognitive Style Mapping is also recommended for all full-time students.

PROVISIONAL STUDENTS

A student applying too late to complete pre-entrance requirements may be permitted to enter the college as a provisional student. Provisional students must complete all requirements within the first quarter of attendance.

SPECIAL CREDIT STUDENTS

Caldwell Community College and Technical Institute recognizes that some adults who are not pursuing a degree or diploma may wish to register for an occasional course. Special credit students may register by completing the proper application forms. A student may remain in this category as a special student until twelve quarter hours of credit are completed or until the student transfers into a particular program. The student must then complete the proper placement testing and submit a school transcript.

FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U.S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-1562.

Foreign students must meet the same admission requirements as all other students. Included with the application should be a transcript from an authorized school or university. If this document is not in English, it should be translated and certified before being sent to CCC & TI. The applicant should also present a statement from a qualified authority indicating sufficient proficiency in English to cope with studies at CCC & TI.

VISITING STUDENTS

Students who are working toward a degree in another institution may register for courses at Caldwell Community College and Technical Institute. The student must complete the application forms and submit a letter from the institution from which that student expects to graduate indicating student status. It is the responsibility of the visiting student to request that transcript(s) of work taken at CCC & TI be sent to the "home" institution.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges, or universities. If admitted, the prospective student's record will be evaluated by the registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desired advanced standing. Courses in which a student had made a grade of "D" may be transferred to Caldwell Community College and Technical Institute if the overall average of the courses transferred is 2.0 or better.

POLICY ON ADMISSION OF HIGH SCHOOL STUDENTS

An applicant for admission to a course or courses at Caldwell Community College and Technical Institute who is neither a high school graduate, nor high school dropout, nor eighteen years of age, but who is concurrently registered (or on vacation) as a student in one of the two upper grades of high school, may be admitted, subject to the discretion of the college administration and taking into consideration the constraints of facilities and funds available; provided that such applicant's admission to each course shall require written approval or recommendation of the superintendent or other designated executive or administrative officer having responsibility in or over the high school in which the student is enrolled while attending Caldwell Community College and Technical Institute.

An applicant not attending high school who is between the ages of sixteen and eighteen years and who has special educational needs may be admitted to appropriate courses or programs provided:

(1) That applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the quarter; and

(2) That the application is supported by a notarized petition of the applicant's parent, legal guardian, or other person or agency having legal custody and control, which petition certifies the place of residence and date of birth of the applicant, the parental or other appropriate legal relationship of the petitioner to the applicant, and the date on which the applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

(3) That such admission will not pre-empt institution facilities and staff to such an extent as to render the institution unable to admit all applicants who have graduated from high school or who are eighteen years of age or older.

SUSPENSION, DISMISSAL, AND READMISSION

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Readmission of dismissed students at a subsequent session will be at the discretion of the college. Students should refer to the student handbook for details on disciplinary procedures and regulations pertaining to suspension and expulsion.

A student dismissed from the college for any reason can petition the admissions committee to consider his/her readmission after one quarter's absence following dismissal.

Veterans should see the section on Academic Probation for information concerning the reinstatement of benefits.

ACADEMIC STANDARDS

GRADING SYSTEM

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter should schedule a conference with the instructor and/or their faculty advisor.

Students enrolled in curriculum program courses will be graded by the letter-grade system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	Letter Grade	Grade Point Equivalent
93-100	A — Excellent	4 quality points each quarter hour
85-92	B — Good	3 quality points each quarter hour
77-84	C — Average	2 quality points each quarter hour
70-76	D — Below Average	1 quality point each quarter hour
Below 70	F — Unsatisfactory	0 quality points each quarter hour

I — Indicates failure to complete certain course requirements because of extenuating circumstances.
W — Student withdrew from the course.
Y — Audit — Indicates no grade or credit given.
P — Pass — No quality points given.
CR — Credit by examination — No quality points given.

GRADES OF "I" (INCOMPLETE)

An "I" grade in a course indicates the student has not met (for whatever reasons) the minimum objectives of the course set up by the instructor and/or the departments involved; however, the student is making satisfactory progress at the time the grade is given. This "I" may be removed in one of two ways:

1. Re-registering for the course and completing all requirements for the course;
2. Completing the requirements for the course as stipulated in a written agreement drawn by the faculty member involved and signed by the student and faculty member. The agreement will specify the work to be completed and the period of time within which a student may complete the work and, in no case, will that period of time exceed one year. Copies of this agreement should be sent to the student development office and the student's advisor. The student shall be given a copy and the faculty member should retain a copy for his/her files.

Veterans should check with the veterans coordinator in the student development office upon receiving an "I" grade and before attempting to re-register for the course.

WITHDRAWING FROM COURSES AND/OR SCHOOL

Students who withdraw from a class or from the college should first consult with their academic advisor and then contact the registrar in the student development office. Failure to make these contacts and to withdraw officially from a class or from the college prevents college personnel from offering assistance to the student and increases the chance of errors in recording of official grades and records.

A student may withdraw from a course and receive a grade of "W" up until fifty percent of the class contact hours have elapsed. The grade "W" will have no bearing on the grade point average. After the midpoint, or after fifty percent of the class contact hours have elapsed, a grade of "W" may not be given on a student-initiated drop petition. However, an instructor may initiate a drop petition after the midpoint and assign a grade of "W".

Veterans should check with the veterans coordinator in the student development office for specific VA regulations concerning withdrawals and class repeats.

COURSES REPEATED FOR CREDIT

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the student's grade point average.

AUDITING

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the "audit" to credit.

Any student who wishes to audit a physical education course must have the department chairperson's approval.

CREDIT BY EXAMINATION

Students enrolled at Caldwell Community College and Technical Institute who are qualified to accelerate their studies because of their demonstrated abilities may receive credit by examination for some of the curriculum courses. The student wishing to receive credit by examination must petition the department head under whom the course is offered. If the department head deems the course suitable for credit by examination, the student may receive permission to take the examination developed by the department head and appropriate instructors. The department head will decide the appropriate score demonstrating competence in the course. Regular course fees must be paid by the student before credit can be given.

If the examination is passed, the student will earn credit hours toward graduation but no grade points. Credit by examination (CR) will be indicated on the student's transcript. If the examination is not passed, no notation will be made on the transcript.

Credit by examination may not be used to repeat a course nor may the student repeat the examination. No more than one-third of the hours required for a degree or diploma may be earned by examination.

COURSES NOT ON THE SCHEDULE

Eligible students may apply to take a course that is listed in the school catalog but is not being offered during the designated quarter. Students apply through the student development office. Permission must be obtained from the department chairperson responsible for the course.

INDEPENDENT STUDY, 198 COURSE

Eligible students may wish to pursue the study of a particular subject which is not listed in the school catalog. Under this program, the student designs and pursues a project with an instructor serving as consultant. For information on independent study, the student should consult with the student development office. Permission must be obtained from the chairperson of the department in which the study will be done.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

FACULTY ADVISOR SYSTEM

The faculty advisor program is a cooperative effort of the faculty and the student development office. At the time of enrollment, each student is assigned an advisor who will assist that student in planning programs and selecting courses so appropriate progress will be realized. Counselors serve as advisors to special credit students. Advisor/advisee conferences are held at least once each quarter. Specific dates for these conferences, along with additional instructions, are listed in the current student handbook.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the registrar, advisor, and instructor.

ACADEMIC PROBATION

Caldwell Community College and Technical Institute considers the following accumulative grade point average for total hours attempted as evidence of satisfactory academic progress at the college:

Quarter Hours Attempted	Associate Degree Grade Points	Diploma Grade Points
6-12	1.00	1.00
13-24	1.25	1.25
25-36	1.50	1.50
37-48	1.75	1.75
49 -60	1.85	2.00
61-72	1.90	
73-84	1.95	
85- Graduation	2.00	

All program students (those enrolled as Special Credit are excluded) failing to maintain the average above will be placed on academic probation for one quarter. The student development office will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisors. The advisor will explore various options with the student, including the following:

a. reduction of course load
b. referral to the student development office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. enrolling in additional preparatory courses
g. reduction of nonscholastic activities

Any curricular student on probation will remain on probation until that student's cumulative GPA reaches the standards of progress listed above.

A person receiving VA benefits will not be recertified until he/she has met the satisfactory academic progress requirements.

ADVISED STATUS

If a student's grade point average for the **quarter just completed** falls below a certain level, he/she will be considered to be on advised status and will be notified by letter. This is not academic probation and is not based on the accumulated grade point average. Appropriate action, mentioned above, should be taken by the student and the academic advisor to prevent the student's being placed on probation in the future.

The chart above will be used to determine if the quarter grade average - shown as "current GPA" on the grade report - is at or above the minimum level for the number of attempted hours.

A student could receive this notice and a probation notice at the same time. (Special Credit students are excluded.)

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the advisors. Students may enroll for a maximum load depending upon their capabilities as determined by their advisors. A normal course load is outlined by departments in this catalog.

STUDENT TUTORIAL ASSISTANCE

Special assistance is available for students in all areas of study at the college. Tutors may be assigned to students at no cost to the student. To request a tutor, students should contact the course instructor.

Instructors are also available for conferences at regularly scheduled office hours or by appointment. It is the responsibility of the student to seek extra help when needed.

DEGREE/DIPLOMA REQUIREMENTS

All students should refer to the college or to the program check sheets for information about the courses required for graduation in the various areas of study. By conferring with the advisors when questions arise and by following the check sheets, students will tend to be more accurate in the proper selection of courses. Check sheets are recommended for all students and are required for all veterans.

REQUIREMENTS FOR GRADUATION

A student is eligible for graduation when the following requirements have been completed:

1. The student must file an application for a degree/diploma during the registration period of the last quarter the student is in attendance.
2. All the requirements for a diploma/degree in a particular program must be satisfactorily completed.
3. The student must have a quality point average of 2.0.
4. The student must take care of all financial obligations to Caldwell Community College and Technical Institute.

Graduation exercises will be held at the end of the summer quarter. All candidates for graduation are expected to be in attendance.

RESIDENCY REQUIREMENTS FOR GRADUATION

Students transferring from other schools to Caldwell Community College and Technical Institute must complete twenty-five percent of their course requirements at CCC & TI in order to qualify for graduation.

HONORS

Dean's List—At the end of each quarter, an academic honor list will be published of all students who complete 10 or more credit hours and who have a quality point average of 3.25 or above.

Graduation With Honors—A graduating student who has earned an overall quality point average of 3.50 or better during studies at Caldwell Community College and Technical Institute will receive the diploma or degree "with honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed and all tuition and fees paid.

ATTENDANCE POLICY

At the request of the faculty senate the institutional attendance policy has been modified. The new statement follows:

Students are expected to attend every class meeting. However, it is recognized that occasional absences may be necessary. A student is responsible for any work missed. At a minimum, a student will be dropped from class membership after the fifth consecutive absence. Beyond this, each department will formulate its own attendance policies in accordance with the varying requirements of the different curricula. These requirements will be published in the student handbook and/or announced at the beginning of each course.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students requesting them, subject to certain conditions. Individuals must have made satisfactory financial arrangements to care for all amounts due the college.

CONFIDENTIALITY OF STUDENT RECORDS

Caldwell Community College and Technical Institute supports the Family Educational Rights and Privacy Act of 1974 which outlines the rights and privacies afforded each student. Information on access to student records is found in the student handbook.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

TUITION AND FEES

POLICIES REGARDING STUDENT EXPENSES

All tuition and required fees are due and payable at the time of the student's registration. The controller or a delegated representative shall have the authority to permit deferred payments of tuition and fees in situations where it is determined that a student is undergoing emergency financial conditions. The student must first see the financial aid officer who will make recommendations to the controller.

All checks and money orders must be made payable to Caldwell Community College and Technical Institute. No student will be allowed to graduate, to receive grades or transcripts, or to register for a new quarter if said student has an unpaid balance due from any previous quarter. Exceptions will be made only if such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

In the event a student writes a check with insufficient funds to the college, the college will no longer accept checks from that individual.

TUITION

Caldwell Community College and Technical Institute offers an educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Community Colleges and are subject to change without notice. Current basic fees to be paid by students upon enrollment are as follows:

In-state students	
12 credit hours or more (full-time)	$51.00
Part-time students per quarter hour	4.25
Out-of-state students	
12 credit hours or more (full-time)	$255.00
Part-time students per quarter hour	21.25
Late Registration Fee	5.00

Tuition for Students Enrolled in More Than One Institution

Where a student desires to enroll for the same quarter at two or more institutions of the community college system, the total amount of tuition shall not exceed the maximum tuition. When enrolled at the second institution, the student must produce his/her validated registration receipt in order to waive any payment of tuition. Activity fees will be charged. It is the student's responsibility to see that transcripts are sent to the "home" institution at the completion of the quarter.

Tuition for Older Citizens

North Carolina residents sixty-five years of age or older shall be exempt from the payment of curriculum tuition and activity fees.

Tuition for Inmates

Prison or correctional unit inmates will be exempt from the payment of tuition or activity fees.

OTHER CHARGES

Student Activity Fees

Curriculum students will be charged $1 per course activity fee up to a maximum of $5 per quarter. This fee is not refundable unless there is an institutional error.

Accident Insurance

All CCC & TI students and employees must sign a waiver prepared by the college which states that the student or employee will assume personal responsibility for all medical costs incurred in case of accident or emergency while attending school or work, including ambulance and emergency room costs. After signing the waiver, the student or employee is given the opportunity to enroll in a low-cost accident insurance program available through the college.

The policy offered will cover enrollees while traveling directly to the college; during hours of college operation; while traveling directly from the college to home; and while participating in college-sponsored activities.

Insurance coverage is from September 1 through August 31 with no refunds of unused coverage. Students who begin classes in the winter quarter or spring quarter must still pay the full amount. The cost of the policy is $5 per year.

Malpractice Insurance

Special malpractice insurance is required for nursing, radiology, nuclear medicine, occupational therapy assistant, and biomedical electronics technology students. Coverage charges may be prorated. This fee is not refundable.

Books and Supplies

Students are required to buy the necessary textbooks and supplies prescribed in the curriculum area they are entering. These vary according to different courses taken by the students. An average expenditure of $75 can be expected by the new fall quarter students for books. Normal school supplies are sold during the regular bookstore hours.

Graduation Fees

A graduation fee of $6 for a diploma/degree is payable at the beginning of the quarter in which the student completes his/her program. This fee is not refundable.

Late Registration Fee

A late registration fee of $5 will be assessed any student registering after scheduled registration days. The late registration fee is not refundable unless there is an institution error.

TUITION REFUND POLICY

Tuition refunds for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw from the institution for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days from the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of $5 or less unless a course or curriculum fails to materialize. In such case, all the student's tuition shall be refunded. Refunds may be calculated to the nearest whole dollar.

If a student is compelled to withdraw from the college during the first ten calendar days for reasons which are, in the judgment of the college, unavoidable, the student may be allowed full credit for the unrefunded tuition and fees if application for readmission is made during any of the next four calendar quarters and a petition in writing is made to be allowed such credit.

FEES NOT REFUNDABLE (Unless Institutional Error):
Insurance payment
Activity fee
Special course fee
Graduation fee
Ring deposit
Invitation and calling card cost

Only the director of counseling or the registrar will be authorized to recommend a tuition refund. Student appeals on the refund issue will be made to the vice president of administration. In all cases, the vice president of administration will make the final decision as to whether a refund is due and, if so, the amount due.

ACCOUNTS

No transcripts, certificates, diplomas, or degrees will be issued, and students will not be permitted to complete registration until accounts are satisfactory to the business office, dean of students, financial aid office, and the learning resource center.

RESIDENCE STATUS FOR TUITION PAYMENT

General

The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained a domicile (legal residence) in North Carolina for at least the twelve months preceding the date of first enrollment or re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification.

Minors

A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment in an institution of higher education in this state is that of the parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

Adults

An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

Married Students

The legal residence of either husband or wife may be used for residence purposes to the advantage of each member of the family. Married couples should check with the residence classification officer at the college.

Military Personnel

No person shall lose in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces, the spouse, and the children may obtain in-state residence status after maintaining their domicile in North Carolina for at least the twelve months preceding enrollment or re-enrollment in an institution of higher education in this state.

Aliens

Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

Property and Taxes

Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status

The residence status of any student is determined as of the time of the student's first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a nonresident for at least twelve consecutive months and

(b) In the case of a resident who abandons the legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

Responsibility of Students

Any student or prospective student in doubt concerning residence status must bear the responsibility for securing a ruling by stating his/her case in writing to the registrar. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state or the reverse, has the responsibility of immediately informing the dean of student development of the circumstances in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

SPECIAL PROGRAMS

PRIME TIME:

A PERSONAL GROWTH PROGRAM FOR WOMEN*

When there is sufficient interest, the college will offer a program known as PRIME TIME during fall quarter for the mature woman who wishes to return to school for self-improvement or for career training.

Three general courses will be scheduled between the hours of 10:00 a.m. and 2:00 p.m. on Mondays, Wednesdays, and Fridays. One of the courses will deal with life planning skills.

All students will remain together for three courses which cover an eleven-week period and end near the Thanksgiving holidays.

Prime Time is being offered as a one quarter introduction to the opportunities at the college and is scheduled so as to allow the woman who has school-aged children to come to class after the public school day begins and return home before it ends. Attending class only three days per week instead of five provides the new student a gradual entry into a new time schedule.

Persons who complete the Prime Time block of courses will receive eight hours of college credit which can be applied to many of the technical and college transfer curricula at the college.

After the program is completed, the student who wishes to return the following quarter has the option of choosing one of the regular career programs or of selecting random courses which might interest her.

Students who enroll must be high school graduates or hold the high school equivalency diploma. A minimum enrollment of twelve students will be necessary to ensure that the program will be held.

*Although Prime Time is especially for women, men will be welcomed in the program.

VETERANS

Curriculum courses offered by the institution are approved for veterans' benefits. Any veteran or dependent who is eligible under provisions of Chapters 34 and 35, Title 38 and Public Law 894 and who has completed the admissions requirements for the school and has a transcript(s) of previous work on file can apply for educational assistance. Such application can be made in the office of the veterans coordinator and must include a copy of the veteran's discharge (DD-214). At registration, both veterans and dependents under Chapters 34, 35 are responsible directly to the school for payment of all costs. ALL WHO RECEIVE VETERANS FINANCIAL ASSISTANCE are further responsible for becoming familiar with specific VA regulations concerning monthly attendance reports, satisfactory conduct and academic progress requirements, and the use of the curriculum check sheet to ensure appropriate selection of courses. This information is available from the coordinator.

Children of disabled or deceased veterans may be eligible to receive financial assistance for tuition and fees. For information regarding eligibility, students should contact the local veterans service officer.

STANDARDS OF PROGRESS, ATTENDANCE, AND CONDUCT FOR VETERANS AND OTHER ELIGIBLE PERSONS CERTIFIED TO THE VETERANS ADMINISTRATION FOR EDUCATIONAL PAYMENTS UNDER PUBLIC LAW 93-508.
(Adapted for the catalog; copies of original document are available from veterans coordinator)

1. Determination of academic progress: All students enrolled in a credit program will be graded by the following letter-grade system and assigned a grade point equivalent.

Numerical Equivalent	Letter Grade	Grade Point Average
93-100	A-Excellent	4.00
85-92	B-Good	3.00
77-84	C-Average	2.00
70-76	D-Below Average	1.00
Below 70	F-Unsatisfactory	0

I—Indicates failure to complete certain course requirements
W—Student withdrew from course

A veteran may not a second time be certified for pay purposes for any regular credit course on which there is a grade of "I". The "I" must be completed within the following thirty-day-calendar period unless other arrangements are made with the coordinator. Work not completed within the time limit will result in an overpayment for the course involved. If a make-up grade is received within a one-year period, the VA will be notified and the overpayment may be removed. There is one exception to the preceding rule: the veteran will be permitted to repeat (one time only) a remedial course on which he/she has made an "I". Coordinator will have additional information.

The following accumulated grade point average for total hours attempted is considered evidence of satisfactory academic progress:

Quarter Hours Attempted	Associate Degree Grade Points	Diploma Grade Points
6-12	1.00	1.00
13-24	1.25	1.25
25-36	1.50	1.50
37-48	1.75	1.75
49-60	1.85	2.00
61-72	1.90	
73-84	1.95	
85-Graduation	2.00	

Each veteran's grades are checked each quarter. Any who fail to maintain the above averages will be placed on academic probation for the next quarter of attendance and will be notified by mail of the probation. Should a notice not reach a veteran, this in no way cancels the probation period. Once grades are out, each student should be aware of his/her academic progress or lack of it.

Veterans who make an "I" grade on 100% of their courses in a given quarter or withdraw from all courses will be considered in academic difficulty and will be placed on probation for the next quarter of attendance.

Veterans with satisfactory progress who show a marked decline in academic achievement in a following quarter will be placed on probation for the next quarter without regard to the overall GPA. The higher average of previous work will not be computed with the low average—the quarter of marked decline will stand alone.

At the end of the one quarter probation period, all who then meet the satisfactory progress test will be removed from probation. Those who do not meet the requirements will be terminated, for pay purposes, to the regional VA office; he/she may be re-instated for benefits (1) after appropriate academic progress is made and/or (2) after VA counseling.

At the end of the quarter for which benefits have been terminated, the coordinator will review the academic progress for that quarter. Should the accumulated GPA meet requirements at the point (see chart), the veteran will be certified retroactively for the quarter just completed.

The official copy of quarter grades for veterans and non-veterans is kept in the registrar's office; a second copy is mailed to each student and a third copy is provided to the veterans coordinator for the purpose of determining progress.

Neither probation nor termination of educational benefits affects the veteran's eligibility to continue enrollment at CCC & TI.

2. Attendance: The school operates within the framework of the NC Department of Community Colleges' attendance policy; therefore, it makes no provision for free "cuts." Each instructor decides when the excessive absence point has been reached and provides the registrar with the names of those students involved. Instructors can initiate withdrawal forms for any student who, in their determination, has jeopardized his/her chance for passing the course because of poor attendance.

All veterans are required to file instructor-signed monthly attendance sheets showing absences. The sheet must be filed with the coordinator no later than the 10th calendar day of the following month.

All absences of veterans enrolled in either vocational or high school equivalency programs are reported to the VA. ("Absences" include both days missed for personal reasons as well as those days missed because the institution is closed for quarter breaks, etc. The coordinator has a list of the non-operating days that are considered as absences.)

Veterans will be terminated to the regional VA office by the coordinator for the following attendance-related reasons: (1) Excessive absences resulting in instructor initiated withdrawal, (2) veteran's official withdrawal, (3) registrar's report that veteran is no longer attending or (4) veteran's failure to provide the attendance sheet by date stated above.

Dropping classes after the quarter begins will often result in either a revision of certification or termination of benefits. Any change in hours MUST be reported to both the registrar and the coordinator.

3. Determination of appropriate courses: Only courses listed in the catalog under the specific curriculum can be certified to the VA. Each veteran must file a check sheet with the coordinator who lists the quarter the course is taken and later adds the grade received. All veterans must check with the coordinator at each registration so that certifications, as well as the check sheets, can be updated.
4. Conduct: The same conduct regulations apply to all students. All behavior which is prohibited by federal, state, and local laws is prohibited on campus. Violations could result in dismissal of any student from school and in termination of benefits for veterans. Re-instatement of benefits would depend upon (1) re-admittance of persons to the school, and (2) recommendation of the VA after counseling.
5. Advancement lab requirements: When a veteran enrolls in the high school equivalency program, he/she is informed (1) that the coordinator must have on file a transcript of previous work prior to certification, (2) that a weekly progress review will be made and (3) that, based upon placement inventories, grade completed in public school, time elapsed since last school, etc., he/she should complete the work in a certain period of time. At the first sign of unsatisfactory progress, the veteran is scheduled for a conference with the lab advisor. Should unsatisfactory progress continue after several such conferences, the advisor will notify the coordinator who will terminate benefits until such time as a sufficient percent of acceptable work is completed to put the veteran back on the time schedule. The probation period is considered to be the time between the first unsatisfactory progress conference and the time the coordinator is notified.

Unsatisfactory attendance is determined by the lab advisor. Written notice, along with last date of attendance, is sent to the coordinator who terminates the veteran to the VA.

All veterans attending the advancement lab are advised to report for the hours scheduled on their certifications or run the risk of being counted absent even though they may be making up time at other hours. The coordinator will make a weekly attendance check.

CCC & TI is currently approved for a maximum of 700 hours for the completion of the high school diploma. This does not guarantee that all persons will be allowed the full 700 hours. What it does mean is that each will have the length of time needed up to that number of hours.

Official institutional credit class schedules are published four times per year for the degree/diploma programs. The advancement lab schedule for the high school equivalency program remains constant: the lab is open Monday through Thursday, except for school holiday, from 8:00 a.m.-9:00 p.m. and on Friday from 8:00 a.m.-5:00 p.m. Persons wishing to enroll in the equivalency program may do so at any time.

NOTE: Veterans need to be aware that VA regulations are constantly being revised and expanded. The office of the veterans coordinator will attempt to keep all information current and will have updated material available for distribution.

FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face difficult financial problems to apply for assistance through the financial aid officer. Financial assistance for educational costs may be available in the form of scholarships, grants, loans, and work programs. Within the limited funds available for these purposes, every effort is made by the institution to help students who need monetary assistance.

Financial need is determined through analysis of a Family Financial Statement of the American College Testing Service prepared by the student and parents or guardian. Analysis of the family's financial situation indicates the family's ability to contribute toward educational expenses. Most financial aid is based on need rather than scholastic record. Financial need is the difference in the total educational expenses and what the family can afford to contribute.

There are three types of student financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships—awards that do not have to be repaid. Loans and work are self-help. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

APPLICATION PROCEDURE

Students who are entering Caldwell Community College and Technical Institute for the first time and are in need of financial aid are requested to follow this pattern of application procedure:

1. After application for admission has been initiated (see "Admissions"), write to the financial aid officer and outline needs for financial aid. Instructions for applying will be sent to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who desires to apply for financial assistance must file a Family Financial Statement from the American College Testing Service and must apply for a Pell Grant. These forms are available from the financial aid officer.
3. Report for a personal interview when designated.
4. After determination of the scholarship, loan, grant, or work-study award, the recipient will then be notified by letter.

TYPES OF AID AVAILABLE

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these must not exceed total need.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to that student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the "academic standards of progress" as defined by this institution. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility for aid may be regained by reestablishing academic progress. These regulations are especially applicable to recipients of financial aid from federally sponsored programs.

I. FEDERALLY SPONSORED PROGRAMS

Pell Grant

The Pell Grant program is designed to provide financial assistance to those who need it to attend post-high school educational institutions. The amount of the Pell Grant is determined on the basis of the student's and his/her family's financial resources. To be eligible for this program, a student must be older than the compulsory age of secondary school attendance and must not already have a baccalaureate degree.

The Pell Grant Award is a grant and, unlike a loan, does not have to be repaid. Every student who is applying for financial aid at Caldwell Community College and Technical Institute must apply for the Pell Grant. Applications may be obtained from high school or from the office of financial aid at this institution.

National Direct Student Loan Program

This is a federal loan through which students may borrow funds to complete their education if they are enrolled in a vocational program or if they have completed less than two years of a program leading to a bachelor's degree. Repayment begins six months after the student graduates or leaves school for other reasons. The loan recipient may be allowed up to ten years to pay back the loan. During the repayment period five percent interest will be charged on the unpaid balance of the loan principal. No payments are required for up to three years while a person serves in the Armed Forces, Peace Corps, or VISTA.

Supplemental Educational Opportunity Grant (SEOG) Program

This program of direct grants of financial aid is for students of exceptional financial need who without the grant would be unable to continue their education.

Guaranteed Student Loan Program

This program enables the student to borrow directly from a bank, credit union, savings and loan association, or other participating lender who is willing to make the educational loan. The loan is guaranteed by a state or private nonprofit agency or insured by the federal government.

To apply for the federal interest benefits, students must submit to the lender a recommendation from their school as to the amount they need to meet educational expenses. If they qualify for these benefits the federal government will pay the interest until repayment of the principal must begin. Payments begin six months after the student graduates or leaves school. Up to ten years may be allowed to complete repayment. A person does not have to make payments for up to three years while serving in the Armed Forces, Peace Corps, or VISTA, or for any time the person returns to full-time study.

College Work-Study Program

Caldwell Community College and Technical Institute participates in the college work-study program which provides on-campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer will take into account the student's (1) need for financial assistance; (2) class schedule; and (3) health and academic progress.

II. STATE SUPPORTED PROGRAMS

North Carolina State Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintaining academic progress may apply for the NCSSIG. Students must demonstrate "substantial financial need."

The NCSSIG program is administered in North Carolina by the College Foundation, Inc. Application procedures include the filing of a needs analysis system, either the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of the American College Testing Service. Details of the application process are available from high school guidance counselors and from the college financial aid officer.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications, which are available in January of each year, may be obtained either from the high school guidance counselor or from the financial aid officer at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives an amount determined by the

State Department of Public Instruction per academic year if the student is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina. After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the state Superintendent of Public Instruction in Raleigh on forms supplied by that office. The recipient will be obligated to teach in the North Carolina public schools or in a public resident institution for mentally retarded children for one year for each year he/she received aid. Applications may be obtained either from high school guidance counselors or from the financial aid officer at Caldwell Community College and Technical Institute.

North Carolina Department of Human Resources Loan

This loan, in the amount of $1500, is available to students in the associate degree of nursing program. Repayment may be made by service. A needs analysis is necessary. Application should be made in January directly to the Department of Human Resources, Raleigh, NC. Further information is available from the college financial aid officer.

III. LOCALLY SUPPORTED PROGRAMS

The institution currently offers several scholarships and loan programs. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what criteria are to be used in awarding them.

Scholarships and loans available as of the printing of this publication are:

Dr. Caroline McNairy Scholarship Fund

This memorial scholarship fund was established in 1969 to be awarded to deserving practical nursing students, radiologic technology students, and medical executive secretarial students.

Alpha Delta Kappa Memorial Scholarship

This academic scholarship was established by the Alpha Delta Kappa Sorority. The recipients are to be pre-teaching students who have completed at least 45 credit hours while maintaining an overall average of at least 3.0. Scholarship, leadership, and maturity will be considered. The award is made in the fall of the year. Applications are available from the financial aid officer.

C. W. Porter Scholarship

This memorial scholarship was established in 1971 by friends of the late C. W. "Soup" Porter. It has initial contributions from 27 individuals and businesses totaling over $5,000.00. Contributions to this fund are accepted at any time.

Rotary Club Nursing Scholarship/Loan

The Lenoir Rotary Club has designated that recipients of this fund be enrolled in the associate degree of nursing program. The recipient may renew for the second year of the program. Repayment may be made in cash or by working as a nurse in Caldwell County.

Blue Ridge Electic Membership Corporation Scholarship

This fund was established in September, 1973 to assist in meeting the educational needs of students.

Broyhill Foundation Scholarship

The Broyhill Foundation contributes $1,000.00 each year to maintain a scholarship fund to be used to aid students in continuing their education.

M. L. DeVane Scholarship

The Ebony Kinship Club of CCC & TI established this fund in 1975 to aid a student enrolling full-time at this institution. It was further stipulated that the recipient have completed 45 credit hours while maintaining an overall average of 2.5 or higher.

Granite Savings and Loan Association Scholarship

The board of directors of the Association voted in April, 1974 to establish this scholarship fund. An award is to be made to a graduate of South Caldwell High School. The student selected must be enrolled or accepted for enrollment in either a vocational or technical program.

Caldwell Medical Society Loan Fund

In the spring of 1974, the Caldwell Medical Society established a loan fund which would be available to students in the health related programs at Caldwell Community College and Technical Institute. The amount borrowed by the student would depend on financial need. The student must repay the loan at a low interest rate. Payments would begin after graduation or upon withdrawal from school.

Caldwell Medical Society Auxiliary Scholarship

Established in 1975, this scholarship has been designated by the Caldwell Medical Society Auxiliary to be used to aid a student enrolled in nursing training who would otherwise be unable to attend school.

Altrusa Club Scholarship

This fund was established by the Altrusa Club of Caldwell County in 1975 to aid students over 25 years of age who are residents of Caldwell County and who are returning to school to pursue career training.

Rufus C. Gwyn Memorial Scholarship Fund

Each year the faculty of the college awards a scholarship to a student who is graduating from CCC & TI and whose intentions are to further his/her education.

The scholarship is paid to the institution where the student is enrolled. Nominations may be made by faculty, staff, community, and students.

Those making nominations and the committee selecting the recipient of the scholarship will consider:

1. integrity, the nominee's wisdom, concern for others, and humility
2. desire to continue education
3. need
4. capability to succeed in the area in which the student is to enroll.

North Carolina Electric Membership Corporation Scholarship

The N. C. E. M. C. donated funds in 1977 to establish this scholarship to assist deserving students.

Emory C. McCall Scholarship

This memorial scholarship was established as a perpetual fund in 1976 by friends of the late Emory C. McCall. It has initial contributions from over 85 individuals and businesses totaling over $10,000.

Carl Prestwood Scholarship

The family and friends of the late Carl Prestwood established this memorial fund in 1976 to be used as scholarships for deserving students. Initial contributions totaled approximately $2500.

Marian Alma Coffey Memorial Scholarship

The family and friends of the late "Mac" Coffey, who was a student at CCC & TI in recreational leadership, established this memorial scholarship to be used for second-year students enrolled in the recreational leadership program.

Carrie Peters Memorial Scholarship

This fund was established in 1976 by the family and friends of Carrie Peters to be used to aid deserving students.

Addie B. Flowers Scholarship Fund

Established in 1978 as a memorial to the late Ms. Flowers, this fund has been designated to aid students in Caldwell County in need of financial assistance.

Lenoir Kiwanis Club Scholarship

This fund is provided by the Lenoir Kiwanis Club to aid needy students.

Wilford Randolph McGowan Scholarship

Established in 1978 as a memorial to Randy McGowan by his friends and family, this fund is to be used for residents of Caldwell and contiguous counties. It is to be based on need and academic promise.

Harold Coffey Memorial Scholarship

The Coffey Foundation established this scholarship fund in 1978 as a memorial to Mr. Coffey. Its recipients are to be needy residents of Caldwell and contiguous counties. Preference is given to students in nursing and other medical programs.

Western North Carolina Lung Association Scholarship

The association has provided funds to be used for a deserving nursing student.

E. E. Stafford Scholarship

This fund was established in 1979 by the Lenoir Civitan Club to aid a needy Caldwell County native.

Vester Corpening Scholarship

Established in 1980 by the Ebony Kinship Club, this memorial fund will aid needy students from Caldwell County.

Robin Triplett Scholarship

The Triplett family has requested that this memorial scholarship be used to aid a needy, handicapped student.

Cade Shaver Memorial Scholarship

Established in 1980 by the Cade shaver Sunday School Class of the First Baptist Church, Hudson, N. C., the scholarship is to be used by a student majoring in religion, teaching, or human services.

Julia Alexander Memorial Scholarship

Established in 1981, this award is designated for a student in the secretarial science or business administration program who maintains a GPA of 2.5. This fund honors a past president of the college's NCAEOP chapter.

Emergency Assistance Fund

This fund was established in 1982 by the Life Skills committee to aid students facing critical emergency situations. Assistance may not exceed $30 in any quarter, and may be returned as a gift to the fund or repaid by working on campus.

Any faculty or staff member may initiate action for a student by contacting any member of the Life Skills Committee.

L. E. Shade Memorial Scholarship

Established in 1982 by friends of Mr. Shade, this scholarship will be used to aid deserving students in need of assistance to continue their education.

Caldwell Memorial Hospital Auxiliary, Inc. Nursing Scholarship Fund

The Auxiliary established this scholarship to aid deserving students enrolled in the nursing program. First preference will be given to employees of Caldwell Memorial Hospital.

IV. FOUNDATIONS

Many students who enroll at Caldwell Community College and Technical Institute receive financial assistance from private foundations. Some of this assistance is in the form of gifts and scholarships. Other students are able to borrow funds from these foundations to continue their education.

Dr. C. L. Robbins Educational Fund

Students enrolling at Caldwell Community College and Technical Institute are eligible to apply for financial assistance through the Robbins Foundation.

Applications may be secured from the financial aid officer at Caldwell Community College and Technical Institute or from the Foundation.

College Foundation Loan

North Carolina residents may apply for a North Carolina Insured Student Loan through the College Foundation. Applicants must be enrolled full time and be in good academic standing. Loans may not exceed the total cost of education less other financial aid received. The amount of the loan is determined by the Foundation after consideration of the school's recommendation. Some borrowers may be eligible for federal interest benefits. After graduation or upon withdrawal from school, the borrower then assumes the full nine percent interest on the balance of the loan.

V. OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

1. Veterans benefits
2. Social Security Agency
3. Vocational Rehabilitation Agency
4. Department of Social Services
5. Various other North Carolina agencies

STUDENT DEVELOPMENT

GENERAL PHILOSOPHY

The philosophy of the student development division reflects the stated mission, purpose, and philosophy of the institution, which is the total development of students. The division takes an active role in providing opportunities for mutual problem solving, developing relevant experiences, and promoting a general atmosphere in which students may develop their full potential as human beings.

COUNSELING

Opportunities for counseling are made available to all students enrolled in the college. Information and counseling are available to assist students in various areas, such as admissions, course and program selection, financial aid, personal and social problems, career selection, job placement, study habits, college transfer, veterans' information, and human development courses.

ORIENTATION

New students are expected to participate in an orientation program designed to promote a more rapid adjustment to the institution. The orientation programs are usually held in late summer or early fall of each year.

HOUSING

The college does not have housing facilities, but students are generally able to locate satisfactory housing in the area. It is important that both students and landlords have a complete understanding of rental conditions so that there will be no misunderstandings concerning such details.

TRANSPORTATION

The college provides no transportation service for students. There are no buses or other forms of public transportation, so students must have their own forms of transportation and/or participate in car pools.

CAREER INFORMATION/COUNSELING

During spring quarter 1980, Caldwell Community College and Technical Institute became one of twenty-seven demonstration sites for CHOICES. CHOICES is a career information system that uses a computer terminal to provide accurate, up-to-date information about occupations, training requirements, and job opportunities available in North Carolina. A career counselor is available to assist in the use of the computer and in interpreting the information CHOICES provides. Appointments for use of CHOICES can be made by contacting the Life Skills Center.

STUDENT/ALUMNI JOB PLACEMENT

The placement of students and alumni in jobs is a function of the student development division. A career counselor seeks available job listings from local employers, and students and alumni are encouraged to register and confer with this office in their search for meaningful employment.

STUDENT CONDUCT AND RESPONSIBILITIES

It is expected that students will conduct themselves as responsible adults, thus obeying all federal, state, and local laws as well as specific college regulations. The board of trustees retains the right to pass certain regulations governing the conduct of students on campus and at college-sponsored events. Specific information regarding these regulations is found in the student handbook. Students may be dismissed whose conduct violates these laws or regulations or whose conduct is considered incompatible with the purposes of the college. THEREFORE, ALL STUDENTS ARE HEREBY GIVEN NOTICE TO EXAMINE THE STUDENT HANDBOOK PRIOR TO ADMISSION AND TO UNDERSTAND ITS CONTENTS. Copies of the handbook are available in the student development office.

STUDENT GRIEVANCE PROCEDURE

Procedures have been established for students to follow when or if they feel they have been treated unjustly or in a discriminatory manner. Both informal and formal grievance procedures are described in the student handbook under the heading, "Grievance Procedures."

STUDENT ACTIVITIES AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION

The student government association is composed of all students who enroll in curriculum programs at the college. Officers and senators are elected each year to serve the student body in promoting various activities and opportunities for out-of-class learning, social contacts, entertainment, and self-governance. The elected officers and senators strive to promote the general welfare of the students in a democratic fashion.

A copy of the student government constitution may be found in the student handbook.

CLUBS AND ORGANIZATIONS

Various clubs and organizations have been developed by students at the college:

Departmental/Subject Related Clubs
  Auto Mechanics Club
  Cosmetology Club
  Sigma Tau Omega (Radiology)

General Interest Clubs
  Alpha-Omega
  Astronomy Club
  Chess Club
  Circle K
  Ebony Kinship

Any group of students may create a new club by following the steps outlined in the student government constitution in the student handbook.

ATHLETICS

The college is a member of the National Junior College Athletic Association and the Western Tarheel Conference and participates in co-ed intercollegiate golf and tennis. The school colors are blue and white and the mascot is the Cavalier.

Students interested in any of these sports should contact the various athletic coaches in the faculty office area.

INTRAMURALS

Various intramural sports opportunities are available for students, faculty, and staff at the college. Volleyball, chess, tennis, ping pong, shuffleboard, badminton, basketball, pickleball, and frisbee football are among the intramural offerings during each year.

Students interested in participating should contact the intramural coordinator in E-121 and watch for announcements on the intramural bulletin board in the student lounge.

STUDENT ACTIVITIES

Personal and social development is as important a part of education as academic improvement, and the college is committed to providing various student activities on campus to encourage development in these areas. In order to finance these activities, a student activity fee of $1.00 per course (up to a maximum of $5) is charged each student. The fee is used to support such activities and organizations as the following: school newpaper; campus clubs; dances; cook-outs; picnics; intercollegiate athletics; intramurals; purchase and maintenance of the television set, pool tables, and related equipment; student government activities; scholarships; trophies; speakers; film series; a variety of cultural programs; skiing excursions; and a variety of miscellaneous activities. Students who wish to initiate new activities should contact the student government association office for assistance.

THE BROYHILL CENTER FOR LEARNING RESOURCES

The purpose of the Broyhill Center for Learning Resources is to support the established objectives of the total educational program through a collection of print and non-print media and audiovisual equipment, orientation and references services, and audiovisual and reprographic production.

Students are encouraged to look upon the center as an extension of their classroom instruction. The center has study stations and resources to support study and provide for recreational reading, listening, and viewing. In addition, the center staff is always ready to be of assistance.

LIFE SKILLS CENTER

The Life Skills Center is located on the second floor of "G" building on the north end of the campus. It is open from 8 a.m. until 9 p.m., Monday through Thursday, and until 5 p.m. on Fridays.

The purpose of the Center is to help all students to develop the skills, knowledge, and understanding necessary for effective living and personal development.

The Life Skills Center includes the following areas:

Adult Basic Education

Classes are offered for people who may need help learning basic speaking, reading and writing skills. Instruction is also provided in arithmetic, science, and social studies. Classes are offered free of charge, including all books and materials that have been especially prepared for adult learners. Persons can study at their own pace, with instructors available to assist in this pre-high school level program.

Advancement Laboratory

The Advancement Laboratory is a study center where persons can use self-teaching materials to:

- prepare for the high school diploma, G.E.D. examinations, and North Carolina Competency Test.
- upgrade skills in specific subject areas.
- overcome deficiencies in subjects needed for college entrance.
- study in areas of general interest.
- receive tutoring in selected courses.

Instructors are available to assist persons who need help.

Adult High School Diploma

This program is designed to give adults who have less than a twelfth-grade education another opportunity to finish high school. Two options are offered: individual study in the advancement lab or a more structured approach through classes at the center and throughout the community. Persons may enroll and complete the programs at anytime although a high school graduation occurs only in August. Costs of registration and books are minimal. Graduation requirements include acceptable scores on four tests: American history & social studies, science & biology, English and math. The North Carolina Competency Test is also required. The national GED program is also offered as an alternate to the adult high school program, and is available through individual study in the advancement lab or through a new telecommunications course being sponsored by the state community college system.

Career Counseling (CHOICES)

CHOICES, a computerized career information system, is presently the primary career counseling instrument. The system provides information on occupations available, education requirements, and salary expectations. It enables the student to explore, compare and select career possibilities. A print out is given to each participant. Evaluation questionnaires are completed before and after the student uses CHOICES.

Guided Studies

Guided Studies is designed to help students who may not be academically well-prepared for college. If the English, math, and reading placement inventories given in the Testing Lab indicate a need for skills improvement, students enroll in guided studies courses. These courses are a regular part of the offerings of different departments and include basic English, math, reading, psychology, accounting, physical education and science. Guided studies advisors and instructors assist students through the first year of college.

Pre-Job

The Pre-Job, or Human Resources Development Program, helps prepare persons for employment. A cycle of eight weeks focuses upon such things as:

- identifying personal strengths
- learning about suitable careers to pursue
- developing self-confidence
- improving skills in problem solving, decision making, communications, and human relations
- learning how to correctly fill out a job application and prepare a resume.

The staff of Pre-Job helps in planning one's education or in finding a job, depending on one's personal goals. Follow-up counseling is provided for one year following completion of the program.

Reading Center

The Reading Center provides students an opportunity to develop reading skills needed to be successful in a curriculum program. As an open-door institution, CCC & TI enrolls students with varying degrees of reading abilities. Through individualized instruction (working at one's own pace), students may work to improve both study skills and skills in vocabulary, reading comprehension, and reading speed.

Special Programs

This area provides an exciting open-ended opportunity for a variety of things. A local industry made possible a fine art exhibit in the center. A student art exhibit has now also been displayed. A review of Toffler's Third Wave has been sponsored by the center and the college library. Sessions on how to take notes and study for an exam were conducted during fall quarter, and for the past two years a local attorney addressed students and faculty on what to do if you're arrested. Sex: Myths and Facts was the topic for a noon hour discussion led by the county health educator.

Examples of workshop seminars short courses and counseling available are:

- Career preparation
  - exploring career options
  - developing a resume
  - practicing interviewing skills
- Self-development
- Time management
- Study skills
- Coping techniques
- Interpersonal skills
- Money management
- Legal rights and responsibilities

Testing Lab

The Testing Lab has a variety of uses. All new students are referred to this area for placement inventories. These determine the appropriate beginning courses in English, math, and reading. Adult High School Diploma and G.E.D. tests are also administered by the Testing Lab.

Another purpose of the Testing Lab is as a center for students to take tests they might have missed in class or to take tests given by instructors on an individualized instructional basis.

Other types of services available in the Testing Lab are career preference surveys and a wide variety of tests to assist students in learning more about their personality, achievement, learning styles and vocational interests.

The Life Skills Center is a part of the Continuing Education Division but represents and serves all academic areas as well as the Student Development Department.

Tutoring

Tutoring is provided in both classroom situations and in the advancement lab. Available funds indicate the tutoring must be for vocational and technical students who are handicapped or disadvantaged (many sub categories, within these two). Special tutors are provided for students with language barriers, disabling physical limitations (i.e., stroke victim), and with hearing and sight limitations. Most tutoring is with students who are academically disadvantaged. There are approximately thirteen tutors, most of whom are students.

PROGRAMS OF STUDY

SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered when sufficient students and instructor are available.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hour Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours plus lab hours.

OCCUPATIONAL DIPLOMA PROGRAMS

Diploma programs are designed to prepare persons for trade level occupations. Emphasis is given to the development of manipulative skills. Caldwell Community College and Technical Institute offers the following diploma programs:

AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
BUSINESS DATA SYSTEMS +
COSMETOLOGY
DIESEL VEHICLE MAINTENANCE
EARLY CHILDHOOD EDUCATION
ELECTRICAL INSTALLATION AND MAINTENANCE
FURNITURE PRODUCTION TECHNOLOGY +
INDUSTRIAL MAINTENANCE ENGINEER +
MACHINE SHOP
MECHANICAL DRAFTING +
NURSING—ASSOCIATE DEGREE +
PLUMBING AND PIPE FITTING
RECREATION LEADERSHIP +
TOOL AND DIE
UPHOLSTERY, CUTTING, SEWING*
WELDING

+ Diploma options of two-year programs

* Approved but not offered in 1983-84.

AUTOMOTIVE BODY REPAIR (V-001)

CAREER INFORMATION

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair, and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal, the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for qraduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUB	1101	Auto Body I	4	12	8
WLD	1101	Auto Body Welding I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUB	1102	Auto Body II	4	12	8
WLD	1130	Auto Body Welding II	1	3	2
BUS	1103	Small Business Operation	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUB	1103	Auto Body III	4	12	8
DFT	112	Auto Body Drafting Interpretation	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUB	1104	Auto Body IV	4	12	8
AUB	1105	Auto Body Shop Application	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTO BODY REPAIR

*Part-time Curriculum**

AUB-A	1101	Auto Body Repair I	2-6-4
AUB-B	1101	Auto Body Repair I	2-6-4
AUB-A	1102	Auto Body Repair II	2-6-4
AUB-B	1102	Auto Body Repair II	2-6-4
AUB-A	1103	Auto Body Repair III	2-6-4
AUB-B	1103	Auto Body Repair III	2-6-4
AUB-A	1104	Auto Body Repair IV	2-6-4
AUB-B	1104	Auto Body Repair IV	2-6-4
AUB-A	1105	Auto Body Shop Applications	1-3-2
AUB-B	1105	Auto Body Shop Applications	1-3-2
AUB-C	1105	Auto Body Shop Applications	1-3-2
AHR-A	1101	Automotive Air Conditioning	3-0-3
AHR-B	1101	Automotive Air Conditioning	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	113	Auto Body Drafting Interpretation	1-3-2
ENG	1102	Communication Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101A	Automotive Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1101	Auto Body Welding I	1-3-2
WLD	1130	Auto Body Welding II	1-3-2

*Usually evenings.

AUTOMOTIVE MECHANICS (V-003)

CAREER INFORMATION

Automotive mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines, and other types of equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly, and identification of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all around" training in general automotive repair.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUM	1101	Automotive Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUM	1102	Automotive Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation II	1	3	2
BUS	1103	Small Business Operations	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUM	1103	Automotive Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUM	1104	Automotive Mechanics IV	4	12	8
AUM	1105	Automotive Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTOMOTIVE MECHANICS

*Part-time Curriculum**

AHR-A	1101	Automotive Air Conditioning	3-0-3
AHR-B	1101	Automotive Air Conditioning	0-3-1
AUM-A	1101	Automotive Mechanics I	2-6-4
AUM-B	1101	Automotive Mechanics I	2-6-4
AUM-A	1102	Automotive Mechanics II	2-6-4
AUM-B	1102	Automotive Mechanics II	2-6-4
AUM-A	1103	Automotive Mechanics III	2-6-4
AUM-B	1103	Automotive Mechanics III	2-6-4
AUM-A	1104	Automotive Mechanics IV	2-6-4
AUM-B	1104	Automotive Mechanics IV	2-6-4
AUM-A	1105	Automotive Servicing	1-3-2
AUM-B	1105	Automotive Servicing	1-3-2
AUM-C	1105	Automotive Servicing	3-0-3
BUS	1103	Small Business Operations	1-3-2
DFT	110	Mechanics Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	3-0-3
ENG	1102	Communications Skills	3-0-3
MAT	1101	Fundamentals of Math	2-2-3
PHY	1101A	Automotive Applied Science	1-2-2
PSY	101	Personal Development	1-3-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-2-3

*Usually evenings.

ADVANCED AUTOMOTIVE OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PME	1202	Auto Electrical Electronics	4	9	7
PME	1203	Automotive Engine Tune-up	4	9	7
Elective			1	3	2
			9	21	16
WINTER QUARTER					
PME	1221	Front Suspension, Alignment and Power Steering	1	3	2
PME	1224	Advanced Automatic Transmissions	3	12	7
PME	1226	Automobile Servicing II	2	9	5
			6	24	14

ADVANCED IMPORTED CAR OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	201	Math Decimal-Metric Conversion	3	0	3
AUT	1145	Transaxle Operation and Repair	3	9	6
AUT	1146	The Air Cooled Engine	2	6	4
AUT	1147	Imported Car Carburetion	2	6	4
			10	21	17
WINTER QUARTER					
AUT	1150	Imported Car Valve Trains	2	6	4
AUT	1154	The Wankel Engine	3	9	6
AUT	1158	Front Wheel Drive Systems	2	6	4
Elective			—	—	—
			7	21	14

BUSINESS DATA SYSTEMS

(DIPLOMA OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be members of a programming team with the responsibility for preparing programs for computer solution through a joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals, data systems specialists may be required to update, revise, correct, and write programs as the needs of management dictate.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	110	Office Machines	2	2	3
BUS	120	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			11	11	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	121	Principles of Accounting	3	2	4
MAT	110	Business Math	5	0	5
EDP	102	Computers and Programming II	4	4	6
			15	6	18

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	122	Principles of Accounting	3	2	4
EDP	103	Computers and Programming III	4	4	6
BUS	101	Introduction to Business	5	0	5
			15	6	18
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
EDP	214	Practicum I	0	15	5
EDP	208	Systems & Orientation	4	4	6
			7	19	14
		TOTAL HOURS	48	42	66

COSMETOLOGY (V-009)

CAREER INFORMATION

Today the cosmetologist is called upon to advise men and women on problems of makeup, diet, and care of hair, skin, and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology, including the fundamentals of ethics, history, theory, and practice. The class activities include practical lessons, lectures, demonstrations, and student practice on wefts or mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
COS	1001	Scientific Study I	4	6	6
COS	1011	Mannequin Practice	1	18	7
			5	24	13

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
COS	1002	Scientific Study II	5	0	5
ENG	1102	Communication Skills	3	0	3
COS	1022	Clinical Application I	0	24	8
			8	24	16
SPRING QUARTER					
COS	1003	Scientific Study III	5	0	5
COS	1033	Clinical Application II	0	24	8
			5	24	13
SUMMER QUARTER					
COS	1004	Scientific Study IV	5	0	5
COS	1044	Clinical Application III	0	24	8
			5	24	13
		TOTAL HOURS	23	96	55
FALL QUARTER*					
COS	1005	Public Relations for Cosmetologists	3	0	3
COS	1006	Beauty Salon Business Operations	3	0	3
COS	1055	Chemistry Relating to Cosmetology	3	0	3
COS	1066	Hairstyling II	1	18	7
			10	18	16

*NOTE: The North Carolina State Board of Cosmetic Art has approved two options for the student of cosmetology to become state licensed:

1. Successfully complete 1200 school hours and work a six-month apprenticeship under a licensed cosmetologist after passing the North Carolina State Board examination or
2. Successfully complete 1500 school hours (substituting 300 hours for the apprenticeship) and pass the North Carolina State Board examination to become a licensed cosmetologist.

The additional courses have been added for the student who chooses the 1500 hour option. These are more advanced courses which will better prepare the student to become a licensed cosmetologist.

COSMETOLOGY

*Part-time Curriculum**

COS	1001	Scientific Study I	4-6-6
COS	1002	Scientific Study II	5-0-5
COS	1003	Scientific Study III	5-0-5
COS	1004	Scientific Study IV	5-0-5
COS	1011	Mannequin Practice	1-18-7
COS-A	1022	Clinical Application I	0-6-2
COS-B	1022	Clinical Application I	0-18-6
COS-A	1033	Clinical Application II	0-15-5
COS-B	1033	Clinical Application II	5-0-5
COS-A	1044	Clinical Application III	0-3-1
COS-B	1044	Clinical Application III	0-21-7
ENG	1102	English Composition	3-0-3

*Usually evenings.

DIESEL VEHICLE MAINTENANCE (V-013)

CAREER INFORMATION

The diesel vehicle maintenance person maintains, services, and repairs commercial motor-freight transportation equipment. This person is skilled in service work such as oil changing, chassis greasing, fuel and water leakage testing, belt replacing, and safety equipment checking. Skilled maintenance personnel should be able to read electrical diagrams and interpret and apply technical and service manuals, as well as troubleshoot, diagnose, and make general repairs.

In addition to mechanical skills, diesel maintenance people should be able to complete forms involved with repair and maintenance of commercial vehicles. The skilled person knows shop and vehicle safety principles and is trained to communicate with and in the language of truck drivers and service managers.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
HTM	1101	Truck Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
HTM	1102	Truck Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation	1	3	2
BUS	1103	Small Business Operations	3	3	3
PHY	1101	Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
HTM	1103	Truck Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
HTM	1104	Truck Mechanics IV	4	12	8
HTM	1105	Truck Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

DIESEL VEHICLE MAINTENANCE

*Part-time Curriculum**

AHR-A	1101	Automotive Air Conditioning - Part I	3-0-3
AHR-B	1101	Automotive Air Conditioning - Part II	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	110	Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	1-3-2
ENG	1102	Communication Skills	3-0-3
HTM-A	1101	Truck Mechanics I - Part I	2-6-4
HTM-B	1101	Truck Mechanics I - Part II	2-6-4
HTM-A	1102	Truck Mechanics II - Part I	2-6-4
HTM-B	1102	Truck Mechanics II - Part II	2-6-4
HTM-A	1103	Truck Mechanics III - Part I	2-6-4
HTM-B	1103	Truck Mechanics III - Part II	2-6-4
HTM-A	1104	Truck Mechanics IV - Part I	2-6-4
HTM-B	1104	Truck Mechanics IV - Part II	2-6-4
HTM-A	1105	Truck Servicing - Part I	1-3-2
HTM-B	1105	Truck Servicing - Part II	1-3-2
HTM-C	1105	Truck Servicing - Part III	1-3-2
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101	Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

DRAFTING—MECHANICAL (V-017)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations. Each course is prepared to enable an individual to advance.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, drawing the necessary details. The mechanical draftsman also prepares accurate scale drawings of parts of machines from specifications.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1101	Fundamentals of Math	3	0	3
MEC	101	Machine Processes	1	5	3
WLD	1129	Basic Welding	1	3	2
DFT	101	Technical Drafting	2	8	5
			8	19	15
WINTER QUARTER					
MAT	1102	Algebra	5	0	5
PHY	1101	Applied Science	2	2	3
MEC	102	Machine Processes	1	5	3
DFT	102	Technical Drafting	2	8	5
			10	15	16
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	1104	Trigonometry	3	0	3
MEC	122	Production Procedures	4	3	5
PHY	1102	Applied Science	2	2	3
DFT	103	Technical Drafting	2	8	5
			14	13	19
SUMMER QUARTER					
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
			11	18	18
		TOTAL HOURS	43	65	68

EARLY CHILDHOOD EDUCATION

The early childhood specialist curriculum is designed to fill the need for aides and technicians in a variety of job situations. The curriculum is designed to give a broad general education in human growth and development and experience working with children. Students will be given the basic skills needed to be competent assistants in a childcare program or continue on to acquire skills to be professionals in a variety of child development institutions.

The early childhood specialist should possess good inter-personal skills, a love for children, and should be adaptive in order to function effectively in this position. The major function of the early childhood specialist is the care and guidance of young children. This includes a concern for the mental, social, physical, and emotional growth and development of the child. In a school or a child development center this may include outdoor play, storytelling, language and communication skills, experiences with music, art and dramatic activities.

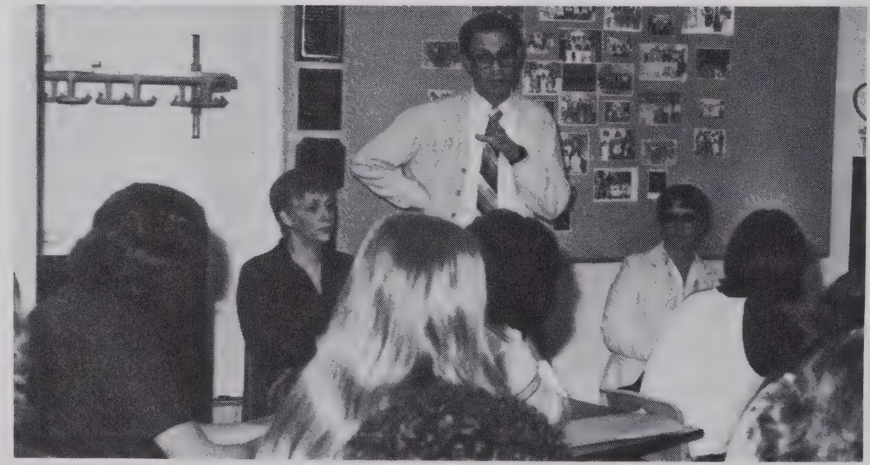
Job titles vary with different agencies and schools. Some of the terms used are educational assistant, teacher aide, childcare worker, early childhood specialist, and auxiliary educational personnel. Still others use assistant teacher or just teacher. Jobs for early childhood education assistants are found in hospitals, institutions for exceptional children, 24-hour care units, Headstart programs, day care and child development centers, private or cooperative nurseries and pre-kindergarten programs, and private schools.

A high school diploma or equivalent is required for the Early Childhood Specialist Program. Additionally, satisfactory placement scores in reading, English and mathematics must be achieved in order to enter this diploma program. Special courses in developmental studies are offered to help the student who does not achieve satisfactory scores for entry.

Reading level of 12.0 or RDG 101 is required for graduation.

Required Core Courses

		COURSE TITLE	CLASS	LAB	CREDIT
EDU	101	Child Growth and Development	5	2	6
EDU	202	Introduction to Early Childhood Education	3	0	3
EDU	220	Language Experiences in Education	3	0	3
EDU	221	Early Childhood Methods and Materials	5	3	6
SPH	100	Interpersonal Communication	3	0	3
ENG	101	Grammar and Composition	2	3	3
PSY	204	Child Behavior	3	0	3
RDG	101	Reading or Proficiency	1	3	2
PED	101	Physical Activities for Children	2	2	3
			27	13	32



Social Sciences

This requirement is met by completing 6 credit hours from any of the following:

PSY	201	General Psychology	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems and Social Issues	3	0	3
SOC	205	Marriage and the Family	3	0	3

Health/Personal Awareness

This requirement is met by completing 6 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	185	First Aid and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
REC	202	Recreational Leadership	3	0	3

Cultural Arts and Skills

This requirement is met by completing 6 credit hours from any of the following:

EDU	200	Movement, Drama and Play	3	2	4
ART	127	Arts and Crafts I	1	4	3
ART	204	Art for Children	2	2	3
REC	121	Social Recreation	3	0	3
REC	215	Recreational Dance	1	4	3
PED	152	Folk Dancing	0	2	1

Humanities/Communication

This requirement is met by completing 6 credit hours from any of the following:

ENG	102	English Composition	3	0	3
ENG	103	Introduction to Literature	3	0	3
ENG	104	Report Writing	3	0	3
EDM	104	Audiovisual Equipment	3	0	3
EDM	206	Children's Literature	3	0	3
SPH	101	Fundamentals of Speech	3	0	3

Electives

This requirement is met by completing 8 credit hours from any of the following:

Any 100 through 299 course

May include EDU 111 Seminar and Practicum by permission of the student's advisor.

May include BUS 195 Small Business Management

May include EDU 201 Introduction to Education

TOTAL CREDIT HOURS - 64

ELECTRICAL INSTALLATION AND MAINTENANCE (V-018)

CAREER INFORMATION

A student will have acquired a basic knowledge of the National Electrical Code as it pertains to wiring design, wiring methods, materials, and equipment for general use. He/she will also develop skill in using electrical prints, troubleshooting, electrical controls, and the repair of electrical and electronic equipment and will acquire a basic knowledge of business procedures and organization.

Within four to six years after completion of this course and with dedication to one's work, the student can become a highly skilled electrical craftsman in this area.

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in either of two general areas:

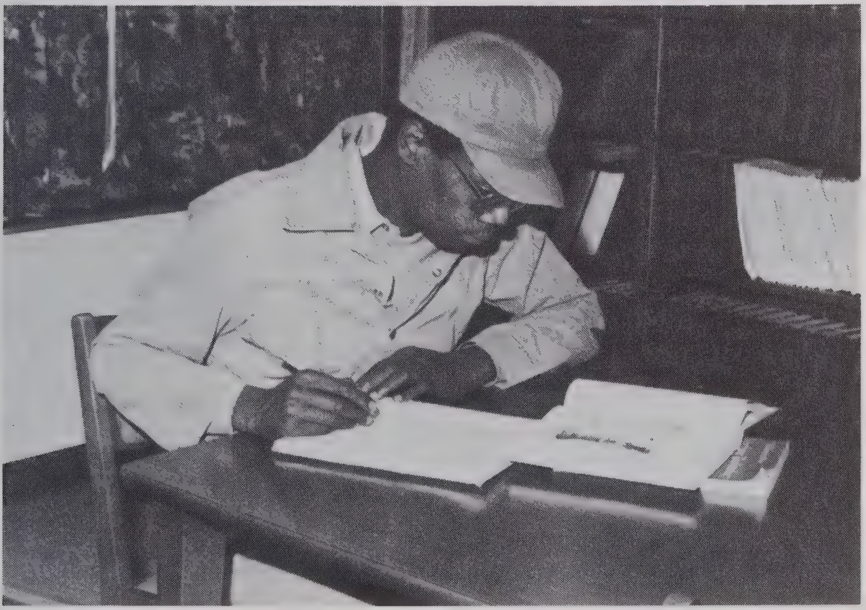
(1) Construction—including new wiring and rewiring of residential, commercial, and industrial buildings.

(2) Maintenance—including installation and maintenance of motors, motor controls, and industrial electronics.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	1115	Electrical Math	5	0	5
PSY	101	Personal Development for Occupational Diploma Programs	1	2	2
DFT	116	Blueprint Reading: Building Trade	0	3	1
ELC	1112	Direct and Alternating Current	4	12	8
			10	17	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	1102	Communication Skills	3	0	3
PHY	1101	Applied Science	2	2	3
DFT	119	Blueprint Reading: Electrical	0	3	1
ELC	1113	Alternating Current and Direct Current and Machines and Controls	4	12	8
			9	17	15
SPRING QUARTER					
ELC	115	National Electric Code	3	0	3
BUS	1103	Small Business Operations	3	0	3
ELN	1118	Industrial Electronics Fundamentals	2	6	4
ELN	1119	Industrial Electronic Controls	2	6	4
Elective		(Humanities)	3	0	3
			13	12	17
SUMMER QUARTER					
ELC	1124	Residential Wiring	4	12	8
ELC	1125	Commercial & Industrial Wiring	4	12	8
			8	24	16
		TOTAL HOURS	40	70	64



ELECTRICAL INSTALLATION AND MAINTENANCE

Part-time/Evening Curriculum

BUS	1103	Small Business Operations	3-0-3
DFT	116	Blueprint Reading: Building Trade	0-3-1
DFT	119	Blueprint Reading: Electrical	0-3-1
ELC	115	National Electric Code	3-0-3
ELC-A	1112	Direct & Alternating Current	2-6-4
ELC-B	1112	Direct & Alternating Current	2-6-4
ELC-A	1113	Alternating Current & Direct Current & Machine & Controls	2-6-4
ELC-B	1113	Alternating Current & Direct Current & Machine & Controls	2-6-4
ELC-A	1124	Residential Wiring	2-6-4
ELC-B	1124	Residential Wiring	2-6-4
ELC-A	1125	Commercial & Industrial Wiring	2-6-4
ELC-B	1125	Commercial & Industrial Wiring	2-6-4
ELN	1118	Industrial Electronics Fundamentals	2-6-4
ELN	1119	Industrial Electronics Controls	2-6-4
ENG	1102	Communication Skills	3-0-3
MAT	1115	Electrical Math	5-0-5
PHY	1101	Applied Science	2-2-3
PSY	101	Personal Development for Occupational Diploma Programs	1-2-2
Elective		(Humanities)	3-0-4

FURNITURE PRODUCTION ASSISTANT (V-040)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum was developed by the furniture industry advisory committee and this college with the primary purpose of better performance on the job. This would include people who have furniture production jobs who want to improve themselves, as well as people without jobs who want to become qualified for jobs in the furniture industry.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PSY	206	Interpersonal Skills	3	0	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	2	0	2
FUR	108	Production Equipment I	4	0	4
			14	6	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	102	Construction and Billing I	1	3	2
FUR	109	Production Equipment II	4	0	4
FUR	112	Routing, Scheduling, and Process	2	2	3
			9	11	13
SPRING QUARTER					
ISC	102	Industrial Safety	3	0	3
ISC	203	Motion Study	2	2	3
FUR	103	Construction and Billing II	1	3	2
FUR	106	Abrasive Materials and Glues	2	2	3
ENG	1102	Communication Skills	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
		TOTAL HOURS	48	29	59

INDUSTRIAL MAINTENANCE ENGINEER

(DIPLOMA OPTION)

As modern industry grows and becomes more sophisticated, there is an increasing demand for skilled personnel trained to install and maintain industrial, electrical, and mechanical equipment. Qualified industrial maintence engineers are needed by industries and manufacturing companies to perform preventative maintenance and repair work on all types of electrical and mechanical equipment.

This program consists of a core of courses to provide the student with a general background in the understanding of electrical-mechanical systems and the practical application of skills needed in the field. Special emphasis is given to the use of blueprints and sketches, hand tools and metal-working machines, and measuring and testing instruments.

A second year of courses is provided for those who choose to pursue an associate degree.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	101	Basic Electricity	2	6	4
MEC	101	Machine Processes	1	5	3
ISC	102	Industrial Safety	3	0	3
			12	17	18
WINTER QUARTER					
DFT	119	Blueprint Reading: Electrical	0	3	1
T-MAT	102	Technical Mathematics (Algebra)	5	0	5
ELC	102	Intermediate Electricity	2	6	4
MEC	102	Machine Processes	1	5	3
WLD	120	Welding, Oxyacetylene	2	6	4
			10	20	17
SPRING QUARTER					
MEC	235	Hydraulics and Pneumatics	3	3	4
IMT	101	Basic Materials Handling	2	6	4
SPH	101	Speech	3	0	3
WLD	121	Arc Welding	2	6	4
			10	15	15
SUMMER QUARTER					
MEC	236	Intermediate Hydraulics and Pneumatics	2	6	4
MEC	265	Bearings and Fasteners	2	6	4
AHR	101	Air Conditioning and Refrigeration	3	3	4
PLU	101	Basic Plumbing and Pipefitting	2	6	4
			9	21	16
		TOTAL HOURS	41	73	66

MACHINE SHOP (V-032)

CAREER INFORMATION

The machine shop is the backbone of the industrial economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. Both training and work experience enable the machinist to plan and carry through the operations needed in turning out a machined product. A skilled machinist is able to: select the proper tools, materials, and methods required for each job; plan the cutting and finishing operations called for on the blueprint or written instructions; make most standard shop computations related to toolings, feeds, speeds, and dimensions of the work; use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of the work to, sometimes, within thousandths of an inch.

Skilled workers must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition, a machinist also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes, and automatic screw machines and becomes familiar with the composition of metals so as to be able to select, heat treat, and quench parts to improve their mechanical properties.

Such a broad knowledge enables the skilled machinist to turn a piece of metal into an intricate, precise final product.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	1101	Fundamentals of Math	3	0	3
DFT	113	Blueprint Reading: Mechanical	0	3	1
WLD	1129	Basic Welding	1	3	2
MEC	1101	Machine Shop Theory and Practice	4	12	8
			8	18	14
WINTER QUARTER					
RDG	092	Reading	1	3	2
MAT	1102	Algebra	5	0	5
DFT	114	Blueprint Reading: Mechanical	0	3	1
MEC	1102	Machine Shop Theory and Practice	4	12	8
			10	18	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
MAT	1104	Trigonometry	3	0	3
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	1103	Machine Shop Theory and Practice	4	12	8
MEC	1115	Treatment of Ferrous Metals	2	3	3
			9	18	15
SUMMER QUARTER					
MAT	1123	Math: Machinist	3	0	3
MEC	1104	Machine Shop Theory and Practice	3	12	7
MEC	1116	Treatment of Nonferrous Metals	2	3	3
MEC	1122	Production Procedures	4	3	5
			12	18	18
		TOTAL HOURS	39	72	63

MACHINE SHOP

*Part-time Curriculum**

DFT	113	Blueprint Reading: Mechanical	0-3-1
DFT	114	Blueprint Reading: Mechanical	0-3-1
DFT	115	Blueprint Reading: Mechanical	0-3-1
MAT	1101	Fundamentals of Math	3-0-3
MAT	1102	Algebra	5-0-5
MAT	1104	Trigonometry	3-0-3
MAT	1123	Math: Machinist	3-0-3
MEC-A	1101	Machine Shop Theory and Practice	2-6-4
MEC-B	1101	Machine Shop Theory and Practice	2-6-4
MEC-A	1102	Machine Shop Theory and Practice	2-6-4
MEC-B	1102	Machine Shop Theory and Practice	2-6-4
MEC-A	1103	Machine Shop Theory and Practice	2-6-4
MEC-B	1103	Machine Shop Theory and Practice	2-6-4
MEC-A	1104	Machine Shop Theory and Practice	2-6-4
MEC-B	1104	Machine Shop Theory and Practice	1-6-3
MEC	1115	Treatment of Ferrous Metals	2-3-3
MEC	1116	Treatment of Nonferrous Metals	4-3-5
MEC	1122	Production Processes	1-3-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	

*Usually evenings.

NURSING—ASSOCIATE DEGREE (V-038)

(DIPLOMA OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and, in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	9	9
NUR	102	Nutrition	3	0	3
			18	14	23
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical - Surgical I	8	0	8
NUR	105	Medical - Surgical I Lab	0	15	5
BIO	135	Microbiology	2	2	3
			16	17	22
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	106	Maternal - Infant Health I	4	0	4
NUR	107	Maternal - Infant Health I Lab	0	6	2
NUR	108	Child - Health Nursing I	4	0	4
NUR	109	Child - Health Nursing I Lab	0	6	2
			11	12	15

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
			9	18	15
		TOTAL HOURS	54	61	75

PLUMBING & PIPEFITTING (V-037)

Plumbing and pipefitting is the craft of installing piping systems to carry water, steam, air, and other liquids or gases needed for sanitation, air conditioning, heating, and other industrial processes. There has been a steady increase in the demand for qualified people in the pipe trades.

This curriculum in plumbing and pipefitting is designed to train individuals to enter this occupation with the knowledge and basic skills that will enable them to perform effectively. Courses in plumbing and pipefitting practices are included to provide practical experience, as well as theoretical information one must know to enter, advance, and keep up-to-date with the pipe trades.

Reading level of 7.0 or RDG 092 required for graduation. Basic hand tools required.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PLU	1101	Plumbing I	4	12	8
DFT	116	Blueprint Reading: Building Trades	0	3	1
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
ENG	1102	Communication Skills	3	0	3
			9	20	16
WINTER QUARTER					
PLU	1102	Plumbing II	4	12	8
DFT	122	Blueprint Reading: Plumbing	1	3	2
MAT	1110	Fundamentals of Math for Plumbers and Welders	5	0	5
PED	185	First Aid Safety	3	0	3
			13	15	18

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
PLU	1103	Plumbing III	4	12	8
DFT	123	Blueprint Reading: Plumbing	1	3	2
PHY	1110	Applied Science for Plumbers and Welders	2	2	3
WLD	120	Welding, Oxyacetylene	2	6	4
			9	23	17
SUMMER QUARTER					
PLU	1104	Plumbing IV	4	12	8
DFT	124	Estimation & Take-Off Practices	0	3	1
WLD	121	ARC Welding	2	6	4
			6	21	13
		TOTAL HOURS	37	79	64

PLUMBING AND PIPEFITTING

Part-time Curriculum

DFT	116	Blueprint Reading: Building Trades	0-3-1
DFT	122	Blueprint Reading: Plumbing	1-3-2
DFT	123	Blueprint Reading: Plumbing	1-3-2
DFT	124	Estimation and Take-Off Practices	0-3-2
ENG	1102	Communication Skills	3-0-3
MAT	1110	Fundamentals of Math for Plumbers and Welders	5-0-5
PED	185	First Aid and Safety	3-0-3
PHY	1110	Applied Science for Plumbers and Welders	2-2-3
PLU-A	1101	Plumbing I	2-6-4
PLU-B	1101	Plumbing I	2-6-4
PLU-A	1102	Plumbing II	2-6-4
PLU-B	1102	Plumbing II	2-6-4
PLU-A	1103	Plumbing III	2-6-4
PLU-B	1103	Plumbing III	2-6-4
PLU-A	1104	Plumbing IV	2-6-4
PLU-B	1104	Plumbing IV	2-6-4
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	120	Welding, Oxyacetylene	2-6-4
WLD	121	Arc Welding	2-6-4

RECREATION LEADERSHIP (T-083)

The Recreation Leadership curriculum at Caldwell Community College and Technical Institute is designed to develop recreation leaders for a variety of agencies serving the community's leisure time needs. The diploma curriculum provides the student with the skills and background knowledge to serve as a recreational aide in all fields of recreation located in public, private, commercial and institutional settings.

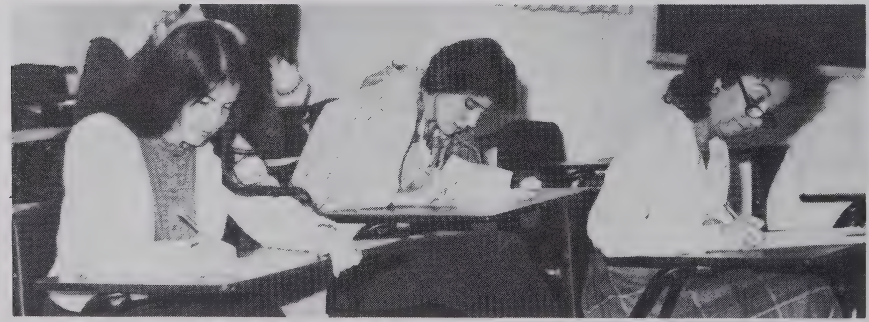
Required Core Recreation Courses

		COURSE TITLE	CLASS	LAB	CREDIT
REC	101	Introduction to Recreation	5	0	5
REC	102	Recreation and Special Populations	3	0	3
REC	103	Recreational Programming	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	208	Intramurals and Sports Management	0	6	2
REC	209	Field Work	0	9	3
REC	211	Recreation Seminar	1	0	1
			15	15	20

Cultural Arts and Skills

This requirement is met by completing 12 credit hours from any of the following:

ART	120	Ceramics I	2	2	3
ART	127	Arts and Crafts I - Creative Crafts	1	4	3
ART	204	Art for Preschool Children	2	2	3
MUS	107	Piano	0	2	1
MUS	111	Guitar	0	2	1
PED	118	Aerobic Dancing	0	2	1
PED	152	Folk Dancing	0	2	1
PED	154	Social Dance	0	2	1
REC	121	Social Recreation	3	0	3
REC	215	Recreational Dance	1	4	3
EDU	200	Movement/Drama and Play	3	2	4



Social Sciences

This requirement is met by completing 9 credit hours from any of the following:

HEA	110	Gerontology I: Aging Process	3	0	3
PSY	201	General Psychology	3	0	3
PSY	204	Child Behavior	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	213	Abnormal Psychology	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
REC	104	Rehabilitation	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems & Social Issues	3	0	3
SOC	205	Marriage and the Family	3	0	3

Health/Personal Awareness

This requirement is met by completing 6 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	180	Personal and Community Health	3	0	3
PED	185	First Aid and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
PSY	209	Human Sexual Behavior	3	0	3
REC	202	Recreational Leadership	3	0	3

Humanities/Communication

This requirement is met by completing the following 3 credit hours:

ENG	101	English Composition	3	0	3

Outdoor Sports and Skills

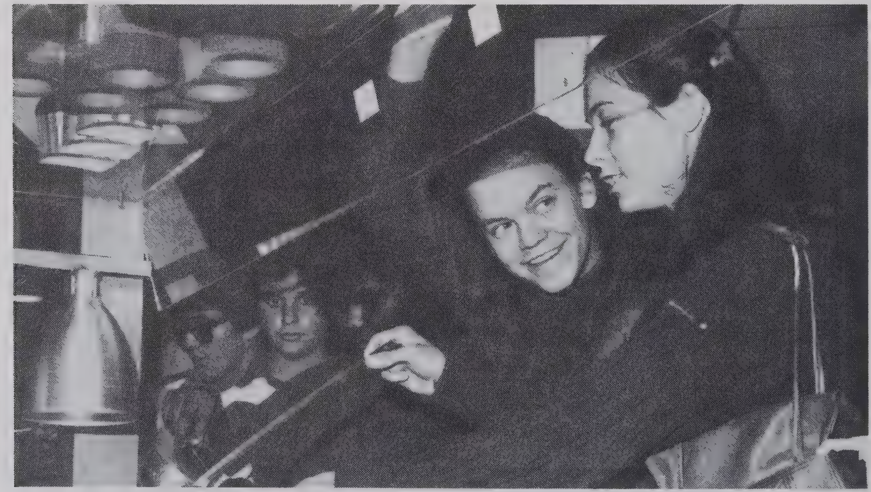
This requirement is met by completing 12 credit hours from any of the following:

PED	101	Physical Activities for Children	2	2	3
PED	110	Archery	0	2	1
PED	111	Badminton	0	2	1
PED	113	Beginning Golf	0	2	1
PED	114	Physical Fitness	0	2	1
PED	115	Beginning Tennis	0	2	1
PED	116	Beginning Skiing	0	2	1
PED	117	Beginning Swimming	0	2	1
PED	125	Backpacking and Mountain Climbing	0	2	1
PED	132	Soccer	0	2	1
PED	133	Softball	0	2	1
PED	135	Canoeing	0	2	1
PED	140	Ice Skating	0	2	1
PED	141	Horseback Riding	0	2	1
PED	200	Intermediate Tennis	0	2	1
PED	201	Introduction to Physical Education	3	2	3
PED	213	Advanced Golf	0	2	1
PED	215	Advanced Tennis	0	0	1
REC	106	Camping	5	0	5
REC	203	Water Sports	1	4	3
REC	205	Outdoor Education	3	0	3

Elective

This requirement is met by completing 3 credit hours from any 100 to 299 course.

TOTAL CREDIT HOURS -65



TOOL AND DIE (V-048)

CAREER INFORMATION

The tool and die maker provides the foundation of many industries. This individual is highly skilled and possesses a tremendous depth of technical knowledge. This curriculum is designed to start an advanced machinist into the elementary requirements of tool and die making and progress into more complex dies, jigs and fixtures, gages, and other areas.

The program will enable the advanced machinist to compare the machines found in a tool and die shop with those found in the average machine shop. Each student will be required to become highly proficient in the use of the machines used in tool and die making. The related courses are designed to give the student an opportunity to advance knowledge in mathematics, strength of materials, drafting, and hydraulics and pneumatics.

Occupational opportunities are found in metal-working industries, job shops, captive tool rooms, maintenance shops, and a wide variety of other industries using tools, dies, and jigs and fixtures for repetitive production products.

To be eligible for the tool and die program, the student must have completed the machine shop curriculum or have equivalent work experience.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	1207	Machine Drafting	1	5	3
MAT	1201	Trigonometry	5	0	5
MEC	1201	Machine Processes	3	12	7
			9	17	16
WINTER QUARTER					
MEC	1202	Machine Processes	3	12	7
MEC	1210	Metallurgy	2	3	3
MAT	1202	Uses of Handbook	3	0	3
MEC	1207	Toolmaking	3	3	4
			11	18	17
SPRING QUARTER					
MEC	1203	Machine Processes	3	12	7
DFT	1216	Blueprint Reading	0	3	1
MEC	1205	Strength of Material	2	3	3
MEC	1235	Hydraulics and Pneumatics	2	3	3
			7	21	14

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
MEC	1204	Machine Processes	3	12	7
MEC	1299	Special Problems (Tools and Molds)	3	6	5
MEC	1214	Tool Design and Planning	2	3	3
			8	21	15
		TOTAL HOURS	35	77	62

UPHOLSTERING (V-082)

CAREER INFORMATION

Upholstering offers both men and women excellent employment opportunities in industry or for self-employment. It is among the most skilled and better paying occupations for the furniture industry. The primary emphasis in the program is upon actual practical experience in the springing up, covering, trimming, cutting, and sewing phases of upholstery. Emphasis throughout is placed upon quality and the development of production speed.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
UPH	1111	Upholstery Materials and Methods I	1	11	5
WINTER QUARTER					
UPH	1112	Upholstery Materials and Methods II	1	11	5
SPRING QUARTER					
UPH	1113	Upholstery Materials and Methods III	1	11	5
SUMMER QUARTER					
UPH	1114	Upholstery Sewing I	1	11	5
FALL QUARTER					
UPH	1115	Upholstery Sewing II	1	11	5
WINTER QUARTER					
UPH	1116	Upholstery Cutting I	1	1	5
SPRING QUARTER					
UPH	1117	Upholstery Cutting II	1	11	5
		TOTAL HOURS	7	77	35

WELDING (V-050)

CAREER INFORMATION

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Shipbuilding, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
WLD	1120	Welding Theory and Practice	3	12	7
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
MEC	1117	Basic Metals Identification	1	2	2
WLD	1112	Welding Inspection and Codes	3	0	3
			8	20	15
WINTER QUARTER					
WLD	1121	Welding Theory and Practice	2	18	8
DFT	120	Blueprint Reading: Welding	0	3	1
ENG	1102	Communication Skills	3	0	3
MAT	1110	Fundamentals of Math	5	0	5
			10	21	17
SPRING QUARTER					
WLD-A	1123	Inert Gas Welding I (TIG)	2	6	4
WLD	1124	Pipe Welding	3	12	7
DFT	121	Pattern Development and Sketching	0	3	1
PHY	1110	Applied Science for Plumbers and Welders	2	2	3
			7	23	15

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
WLD	1122	Commercial and Industrial Practices	3	9	6
WLD	1125	Certification Practices	3	6	5
WLD-B	1123	Inert Gas Welding II (MIG)	2	6	4
BUS	1103	Small Business Operations	3	0	3
			11	21	18
		TOTAL HOURS	36	85	65

WELDING

*Part-time Curriculum**

BUS	1103	Small Business Operations	3-0-3
DFT	113	Blueprint Reading: Mechanical	3-0-3
DFT	120	Blueprint Reading: Welding	0-3-1
DFT	121	Pattern Devel. & Sketching	0-3-1
ENG	1102	Communications Skills	3-0-3
MAT	1110	Fundamentals of Math	5-0-5
MEC	1117	Basic Metals Identification	1-2-2
PHY	1101W	Applied Science	2-2-3
RDG	092	Reading	1-3-2
WLD	1112	Welding Inspection & Codes	3-0-3
WLD-A	1120	Welding Theory & Practice	2-6-4
WLD-B	1120	Welding Theory & Practice	1-6-3
WLD-A	1121	Welding Theory & Practice	1-6-3
WLD-B	1121	Welding Theory & Practice	1-6-3
WLD-C	1121	Welding Theory & Practice	0-6-2
WLD-A	1122	Commercial & Industrial Pr.	2-6-4
WLD-B	1122	Commercial & Industrial Pr.	1-3-2
WLD-A	1123	Inert Gas I	2-6-4
WLD-B	1123	Inert Gas II	2-6-4
WLD-A	1124	Pipe Welding	2-6-4
WLD-B	1124	Pipe Welding	1-6-3
WLD	1125	Certification Practices	3-6-5

*Usually evenings.

OCCUPATIONAL ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

The associate in applied science degree programs are designed to prepare persons for technician level occupations. More emphasis is given to theory than in diploma courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area. Caldwell Community College and Technical Institute offers the following associate in applied science degree programs:

- BIOMEDICAL ELECTRONICS TECHNOLOGY
- BUSINESS ADMINISTRATION
  - Pre-financial Management/Accounting Option
  - Industrial Management Option
  - Personnel Management Option
  - Business Management Option
- BUSINESS DATA SYSTEMS
- DRAFTING AND DESIGN TECHNOLOGY
- ELECTRONICS ENGINEERING TECHNOLOGY
- FOOD SERVICE MANAGEMENT
- FURNITURE PRODUCTION TECHNOLOGY
- INDUSTRIAL MAINTENANCE ENGINEERING
- LIBRARY MEDIA TECHNICAL ASSISTANT
- NUCLEAR MEDICINE TECHNOLOGY
- NURSING—ASSOCIATE DEGREE
- OCCUPATIONAL THERAPY ASSISTANT
- PARALEGAL TECHNOLOGY
- PUBLIC ADMINISTRATION
- RADIOLOGIC TECHNOLOGY
- RECREATION LEADERSHIP (Therapeutic and Community)
- SECRETARIAL SCIENCE
  - Executive Secretary Option
  - Medical Secretary Option

*Approved but not offered in 1983-84.

BIOMEDICAL ELECTRONICS TECHNOLOGY (T-158)

CAREER INFORMATION

Because of the physician's increased use of complex equipment for diagnosis, regulation of body functions, and monitoring and reading of patient problems and progress, well-trained persons are needed for medical equipment maintenance and repair. A biomedical technician must be able to install, operate, repair, and maintain electronic equipment such as x-ray machines, incubators, electronic thermometers, pacemakers, radio frequency surgical devices, cardiac pressure monitors, sterilizers, operating room lamps and tables, automatic culture counters, and pulmonary equipment. The biomedical technician may also be called upon to maintain or make emergency repairs on surgical equipment in the hospital operating room, to instruct hospital personnel in the safe and correct use of equipment, and to be involved in evaluation and testing of new electromedical devices.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ELC	112	Alternating and Direct Current	2	6	4
T-MAT	101	Technical Math	5	0	5
ENG	101	Grammar and Composition	2	3	3
PHY	101	Physics: Work, Energy, Power	3	2	4
			12	11	16
WINTER QUARTER					
ELN	124	Electronics Fundamentals	2	4	4
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
			13	6	16
SPRING QUARTER					
ELN	134	Intermediate Electronics	2	4	4
T-MAT	103	Technical Math	5	0	5
MEC	235	Hydraulics and Pneumatics	3	3	4
ENG	104	Report Writing	3	0	3
			13	7	16
SUMMER QUARTER					
ELN	224	Advanced Electronics	2	4	4
BIO	105	Basic Life Science	4	2	5
ELN	234	Digital Electronics	2	4	4
BMT	254	Biomedical Instrumentation I	2	4	4
			10	14	17
FALL QUARTER					
BIO	208	Introduction to Study of Diseases	3	0	3
BMT	264	Biomedical Instrumentation II	2	4	4
BMT	274	X-Ray and Nuclear Medicine	2	4	4
BMT	201	Medical Instructions	3	0	3
Elective			3	0	3
			13	8	17

WINTER QUARTER

BMT	271	Biomedical Instrumentation III	2	4	4
BMT	244	Safety Inspections and Standards	2	4	4
BMT	280	Medical Circuit Troubleshooting	2	4	4
Elective			3	0	3
			9	12	15

SPRING QUARTER

BMT	228	Practicum	0	39	13
		TOTAL HOURS	70	97	110

BUSINESS ADMINISTRATION (T-018)

CAREER INFORMATION

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning office clerk to management trainee. The duties and responsibilities of the graduate vary in different firms. Positions are potentially available in business, accounting, advertising, banking, credit finance, retailing, wholesaling, hotel, tourism, industry, transportation, and communications.

Through the department of business administration, students may obtain majors in general business, financial management/accounting, personnel management, and industrial management.

Reading level of 12.0 or RDG 101 required for graduation.

INDUSTRIAL MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			17	8	20

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	225	Cost Accounting	3	2	4
BUS	233	Personnel Management	3	0	3
			15	2	16
WINTER QUARTER					
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
BUS	285	Cost Records and Estimates	2	0	2
Elective			3	0	3
Elective			3	0	3
			14	0	14
SPRING QUARTER					
ECO	204	Industrial Relations	3	0	3
ISC	202	Quality Control	3	0	3
BUS	235	Business Management	3	0	3
ISC	103	Production Control	1	3	2
Elective			3	0	3
			13	3	14
		TOTAL HOURS	91	21	100

PERSONNEL ADMINISTRATION OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			17	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	123	Business Finance	3	0	3
BUS	233	Personnel Management	3	0	3
Elective			3	0	3
			18	0	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
PSY	202	General Psychology	3	0	3
SOC	201	Introduction to Sociology	3	0	3
BUS	124	Business Finance	3	0	3
Elective			3	0	3
			15	0	15

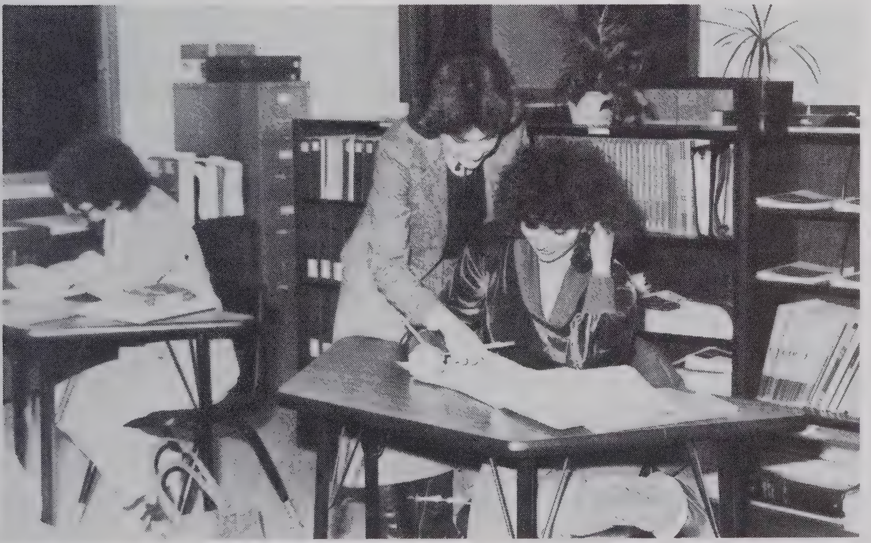
SPRING QUARTER

ECO	204	Industrial Relations	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	203	Contemp. Problems and Social Issues	3	0	3
BUS	235	Business Management	3	0	3
BUS	271	Office Management	3	0	3
ISC	102	Industrial Safety	3	0	3
			18	0	18
		TOTAL HOURS	100	13	107

BUSINESS MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	115	Business Law	3	0	3
BUS	120	Principles of Accounting	3	2	4
			18	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	116	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	102	Typewriting	2	3	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			14	7	17

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
BUS	123	Business Finance	3	0	3
BUS	195	Small Business Management	3	0	3
BUS	239	Marketing	5	0	5
BUS	243	Advertising	3	2	4
			17	2	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
BUS	124	Business Finance	3	0	3
BUS	219	Credit Procedures	3	0	3
BUS	229	Taxes I	3	2	4
Elective			3	0	3
Elective			3	0	3
			18	2	19
SPRING QUARTER					
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
BUS	247	Business Insurance	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
Elective			3	0	3
Elective			3	0	3
			18	0	18
		TOTAL HOURS	102	20	111



FINANCIAL MANAGEMENT/ACCOUNTING OPTION

Evening Program Only

BUS	101	Introduction to Business	5-0-5
BUS	102	Typewriting	2-3-3
BUS	110	Office Machines	2-2-3
BUS	115	Business Law	3-0-3
BUS	116	Business Law	3-0-3
BUS	120	Principles of Accounting	3-2-4
BUS	121	Principles of Accounting	3-2-4
BUS	122	Principles of Accounting	3-2-4
BUS	219	Credit Procedures	3-0-3
BUS	220	Intermediate Accounting I	3-2-4
BUS	221	Intermediate Accounting II	3-2-4
BUS	222	Intermediate Accounting III	3-2-4
BUS	225	Cost Accounting	3-2-4
BUS	229	Taxes I	3-2-4
BUS	230	Taxes II	3-2-4
BUS	269	Auditing	3-2-4
BUS	272	Principles of Supervision	3-0-3
BUS	275	Programming	3-0-3
BUS	276	Money and Banking	3-0-3
ECO	108	Consumer Economics	3-0-3
ECO	201	Principles of Economics I	3-0-3
ECO	202	Principles of Economics II	3-0-3
EDP	104	Introduction to Data Systems	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
ENG	105	Business Communication	3-0-3
MAT	110	Business Math	5-0-5
PSY	201	General Psychology	3-0-3
SOC	201	Introduction to Sociology	3-0-3
SOC	203	Contemp. Problems and Social Issues	3-0-3

BUSINESS DATA SYSTEMS (T-022)

(DEGREE OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be a member of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of the management dictate.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
BUS	102	Typewriting	2	3	3
BUS	110	Office Machines	2	2	3
BUS	120	Principles of Accounting	3	2	4
EDP	104	Introduction to Data Systems	3	2	4
			13	11	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
BUS	121	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			15	6	18
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	101	Introduction to Business	5	0	5
BUS	122	Principles of Accounting	3	2	4
EDP	102	Computers and Programming II	4	4	6
			15	6	18
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	214	Statistics	5	0	5
EDP	103	Computers and Programming III	4	4	6
BUS	225	Cost Accounting	3	2	4
			15	6	18
WINTER QUARTER					
EDP	204	Computers and Programming IV	4	4	6
EDP	208	Systems Orientation	4	4	6
BUS	229	Taxes I	3	2	4
Elective			3	0	3
			14	10	19
SPRING QUARTER					
EDP	217	Data Processing Project	1	8	5
EDP	214	Practicum I	0	15	5
EDP	221	BASIC Programming Language	2	2	3
Elective			3	0	3
			6	25	16
		TOTAL HOURS	78	64	106

DRAFTING AND DESIGN TECHNOLOGY (T-043)
(DEGREE OPTION)

CAREER INFORMATION

This curriculum is designed to prepare a graduate to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters, students will be prepared to enter the field on the trade level. Students will study basic drafting in the first two quarters. From there they will go into the mechanical specialities for the remaining two quarters.

Related courses are offered in a sequential manner to enable students to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling, or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, persons planning to continue for the fifth and sixth quarters and receive an A.A.S. degree must have a high school diploma or sucessfully pass the high school proficiency.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
T-MAT	101	Technical Math	5	0	5
PHY	101	Physics: Work, Energy, Power	3	2	4
DFT	101	Technical Drafting	2	8	5
MEC	101	Machine Processes	1	5	3
			13	18	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
DFT	102	Technical Drafting	2	8	5
MEC	102	Machine Processes	1	5	3
			14	15	20

SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
T-MAT	103	Technical Math	5	0	5
PHY	103	Physics: Electricity	3	2	4
PHY	106	Applied Mechanics	5	0	5
DFT	103	Technical Drafting	2	8	5
			18	10	22
		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
			11	18	18
WINTER QUARTER					
DFT	205	Design Drafting I	2	8	5
DFT	211	Mechanisms	3	2	4
MEC	211	Physical Metallurgy	3	3	4
WLD	101	Welding Practices	3	0	3
Elective			3	0	3
			14	13	19
SPRING QUARTER					
DFT	206	Design Drafting II	2	8	5
MEC	235	Hydraulics and Pneumatics	3	3	4
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			14	11	18
		TOTAL HOURS	84	85	117

ELECTRONICS ENGINEERING TECHNOLOGY (T-045)

CAREER INFORMATION

The electronic engineering technician is required to trouble shoot and repair all types of electronic equipment including communications equipment, consumer electronic equipment, and industrial electronic equipment. Although the technician generally specializes in one type of equipment, the base of knowledge is broad enough to troubleshoot and repair different types of equipment in a variety of environments. The electronic engineering technician may also be required to participate in design and development of electronic components and controls.

A technician's secondary duties include using hand tools, using test equipment, ordering and stocking spare parts, training operators, evaluating new and prospective equipment, communicating with subordinates and superiors, keeping records, and possibly most important, keeping abreast with changing technologies through self-study.

A reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	111	Algebra	5	0	5
PHY	101	Physics: Properties of Matter	3	2	4
CHM	101	General Chemistry I	3	3	4
ENG	101	Grammar and Composition	2	3	3
			13	8	16
WINTER QUARTER					
MAT	112	Trigonometry	5	0	5
PHY	102	Physics: Work, Energy, Power	3	2	4
ENG	102	English Composition	3	0	3
ELC	112	Alternating and Direct Current	2	6	4
			13	8	16
SPRING QUARTER					
MAT	113	Analytical Geometry and Calculus I	5	0	5
ENG	104	Report Writing	3	0	3
DFT	119	Blueprint Reading: Electrical	0	3	1
ELN	124	Electronics' Fundamentals	2	4	4
Elective		(Humanities)	3	0	3
			13	7	16
FALL QUARTER					
ELN	134	Intermediate Electronics	2	4	4
ELC	119	Industrial Electronic Control	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Math)*	5	0	5
			12	10	16
WINTER QUARTER					
ELN	224	Advanced Electronics	2	4	4
ELN	234	Digital Electronics	2	4	4
ELN	254	Electronic Instrumentation	2	4	4
Elective		(Math)**	3	0	3
			9	12	15
SPRING QUARTER					
ELN	238	Microprocessors	2	4	4
ELN	260	Communication Electronics	2	4	4
ELN	270	Consumer Electronics	2	4	4
ELN	274	Industrial Electronics	2	4	4
ELN	280	Electronic Troubleshooting	2	4	4
			10	20	20
		TOTAL HOURS	70	65	99

*Mat 201 (Analytical Geometry and Calculus II) suggested.

**MAT 202 (Analytical Geometry and Calculus III) suggested.

FOOD SERVICE MANAGEMENT (T-074)

CAREER INFORMATION

The food service management curriculum is designed for the training of students in the supervisory or "middle management" level in food service with particular emphasis on institutional food service. This program offers a second-year option in supervision-management to the student completing the entire curriculum and a one-year option in food preparation specialist to the student completing the first-year requirements.

In addition to students having a sound foundation in the science of food preparation and service, they will develop an understanding of the basic science and principles of quantity food preparation, an appreciation of accuracy and the use of standards in production, an increased knowledge of the space and equipment requirements for quantity food production, and service operations of various types, as well as some ability to evaluate the effectiveness of the operation of a food service department. Also, students will understand pricing and cost controls, principles of nutrition as applied to institutional menu planning, safe methods of work performance, and an appreciation of sanitation and hygiene in a food service operation.

The career opportunities available to a graduate of the food service management curriculum are executive chef, food science supervisor, food service manager, food buyer, unit manager, and chef-manager. Employment opportunities are available in hospitals, nursing homes, childcare centers, college and university food services, school food services, industrial cafeterias, private clubs, airline food services, food processing manufacturers, food service control companies, and commercial restaurants.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
FSO	101	Orientation to Food Service	1	0	1
FSO	102	Food Preparation I	3	3	4
FSO	103	Equipment Layout and Design	3	0	3
FSO	104	Sanitation and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	201	Introduction to Sociology	3	0	3
			16	3	17
WINTER QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	120	Accounting I	3	2	4
FSO	106	Nutrition and Menu Planning I	3	0	3
FSO	107	Baking I	3	3	4
FSO	112	Food Preparation II	3	3	4
			14	11	18
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	233	Personnel Management	3	0	3
FSO	109	Production Management	3	0	3
FSO	122	Food Preparation III	3	3	4
FSO	177	Baking II	3	3	4
Elective			3	0	3
			18	6	20

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
FSO	110	Supervised Clinical Education	0	24	8
FSO	111	Seminar	2	0	2
			2	24	10
FALL QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
FSO	202	Food Preparation IV	3	3	4
FSO	203	Organization and Management	3	0	3
FSO	204	Food Purchasing and Cost Control	3	0	3
			17	3	18
WINTER QUARTER					
ENG	104	Report Writing	3	0	3
FSO	205	Nutrition and Menu Planning II	3	0	3
FSO	206	Financial Management	3	0	3
FSO	212	Food Preparation V	3	3	4
BUS	272	Principles of Supervision	3	0	3
BUS	195	Small Business Management	3	0	3
			18	3	19
SPRING QUARTER					
FSO	210	Supervised Clinical Education	0	24	8
FSO	211	Seminar	2	0	2
			2	24	10
SUMMER QUARTER					
FSO	207	Food Merchandising	3	0	3
Elective			3	0	3
			6	0	6
		TOTAL HOURS	93	74	118

FURNITURE PRODUCTION TECHNOLOGY (T-075)

(DEGREE OPTION)

CAREER INFORMATION

The graduate of this program may serve in many areas of the local furniture industry. These areas would include assistant to the plant manager, methods improvement, quality control inspection, cost estimator product engineer trainee, production conntrol trainee, material control supervisor, department supervisor, production scheduling and control, material testing, employee trainer, and industry safety.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	2	0	2
FUR	108	Production Equipment I	4	0	4
			13	9	16
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	109	Production Equipment II	4	0	4
FUR	102	Construction & Billing I	1	3	2
FUR	112	Routing, Scheduling and Process	2	2	3
			9	11	13
SPRING QUARTER					
FUR	103	Construction & Billing II	1	3	2
FUR	106	Abrasive Materials & Glues	2	2	3
ISC	203	Motion Study	2	2	3
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
FALL QUARTER					
ENG	102	English Composition	3	0	3
DFT	103F	Technical Drafting	2	6	4
BUS	101	Introduction to Business	5	0	5
SPH	101	Fundamentals of Speech	3	0	3
			13	6	15
WINTER QUARTER					
BUS	272	Princ. of Supervision	3	0	3
ENG	104	Report Writing	3	0	3
ECO	201	Princ. of Economics I	3	0	3
Elective			3	0	3
			12	0	12

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ISC	204	Value Analysis	3	0	3
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	84	38	98

INDUSTRIAL MAINTENANCE ENGINEER (T-119)

(DEGREE OPTION)

This program continues on from the one-year diploma program for industrial maintenance engineers to include a second year of study. A concentration of degree-related courses as well as advanced industrial maintenance courses are added in the final three quarters.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	101	Basic Electricity	2	6	4
MEC	101	Machine Processes	1	5	3
ISC	102	Industrial Safety	3	0	3
			12	17	18
WINTER QUARTER					
DFT	119	Blueprint Reading: Electrical	0	3	1
T-MAT	102	Technical Mathematics (Algebra)	5	0	5
ELC	102	Intermediate Electricity	2	6	4
MEC	102	Machine Processes	1	5	3
WLD	120	Welding, Oxyacetylene	2	6	4
			10	20	17
SPRING QUARTER					
MEC	235	Hydraulics and Pneumatics	3	3	4
IMT	101	Basic Materials Handling	2	6	4
SPH	101	Speech	3	0	3
WLD	121	Arc Welding	2	6	4
			10	15	15

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
MEC	236	Intermediate Hydraulics and Pneumatics	2	6	4
MEC	265	Bearings and Fasteners	2	6	4
AHR	101	Air Conditioning and Refrigeration	3	3	4
PLU	101	Basic Plumbing and Pipefitting	2	6	4
			9	21	16
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
IMT	201	Maintenance Applications I	2	5	4
ELN	119	Industrial Electronics Fundamentals	2	6	4
MEC	114	Shop Practices	1	6	3
			7	21	14
WINTER QUARTER					
ENG	102	Composition	3	0	3
PSY	206	Applied Psychology	3	0	3
IMT	202	Maintenance Applications II	2	6	4
Elective		(Humanities)	3	0	3
			11	6	13
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	272	Supervision	3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	71	100	105

LIBRARY MEDIA TECHNICAL ASSISTANT (T-080)

CAREER INFORMATION

Graduates of this program function in a supportive role, understand basic library organization, and accept the realities of library or media work under the general supervision of a librarian or media specialist. They may be expected to develop and maintain a working knowledge of policies, practices, and resources of any given library or information center. They have acquired a proficiency of instructional materials and the operation of equipment and its daily maintenance.

As assistants, graduates are not prepared to assume administrative or teaching responsibilities, but they do learn to use the basic terminology and to supervise technical and clerical aspects of all library procedures and routines. The occupational aspect of the program trains people for duties related to such functions as the mechanical preparation of library and audiovisual material; the physical maintenance of both print and non-print materials, files, and equipment; circulation work; acquisitions work; cataloging (except original cataloging); and work involving direct public assistance at information and ready-reference service desks.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
EDM	101	Introduction to Libraries and Information Centers	3	0	3
Elective		(Social Science)	3	0	3
			15	6	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
EDM	103	Library-Media Resources (Ref.)	3	0	3
PSY	206	Interpersonal Skills	3	0	3
MUS	101	Music Appreciation	3	0	3
			14	3	15
SPRING QUARTER					
ENG	103	Introduction to Literature	3	0	3
EDP	104	Introduction to Data Processing	3	2	4
EDM	102	Library Processes I (Selection)	3	0	3
EDM	105	AV Equipment and Production	3	2	4
ART	101	Art Appreciation	3	0	3
			15	4	18
FALL QUARTER					
EDM	201	Library Processes II (Cataloging)	3	2	4
EDM	202	Library Media Procedures (Circulation)	3	2	4
BUS	120	Accounting	3	2	4
POL	203	Government—State and Local	3	0	3
Elective		(Humanities)	3	0	3
			15	6	18

WINTER QUARTER

SPH	101	Fundamentals of Speech	3	0	3
EDM	203	Practicum	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Social Science)	3	0	3
Elective			3	0	3
			14	6	16

SPRING QUARTER

GEO	202	Regional Geography	3	0	3
SCI	100	Natural Environment	3	0	3
EDM	204	Practicum	2	6	4
EDM	206	Survey of Children's Literature	3	0	3
Elective			3	0	3
			14	6	16
		TOTAL HOURS	87	31	100

NUCLEAR MEDICINE TECHNOLOGY (T-104)

CAREER INFORMATION

Since the field of nuclear medicine is developing so rapidly, there is a growing demand for well-trained, highly motivated, adaptable men and women in it.

Manpower studies indicate the need to train more than 1,000 additional technologists in the field each year, and this number may be even larger with the continuing development and application of nuclear medicine technology. The major trends in nuclear medicine which may affect the number of technologists needed over the next few years include the use of faster scanners and cameras for imaging procedures, increased number of dynamic function studies, the development of materials labeled with radionuclides with shorter half-lives, and the use of more complex radio-pharmaceuticals and more automated data-handling facilities, including computers.

With the increasing demand for nuclear medicine services, opportunities are available in large and small hospitals, both public and private. In addition, the armed forces both train and employ nuclear medicine technologists. Also, the growing number of NMT training programs in hospitals, community colleges, and technical institutes provides openings for instructors in nuclear medicine technology.

Graduates of the nuclear medicine technology program will receive an associate in applied science degree and will be eligible to take the national registry exam. Certified radiologic technologists, associate degree nurses, and medical technologists may enter the program as advanced students for a 12-month certificate course. Advanced students must demonstrate competence in chemistry and physics.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. Students must have a "C" average in all nuclear medicine courses. For specific policies concerning the nuclear medicine program, see the student guide or the college registrar.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	2
BIO	125	Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection	1	0	1
			7	3	8
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	101	College Math	3	0	3
BIO	105	Basic Life Science	4	2	5
NMT	101	Nuclear Medicine Technology I	1	0	1
BIO	126	Terminology II	1	0	1
RDT	115	Radiographic Processing	1	2	2
			12	7	15
WINTER QUARTER					
ENG	102	Composition	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
PHY	107	Physics	3	2	4
NMT	102	Nuclear Medicine Technology II	1	0	1
BIO	208	Introduction to Study of Disease	3	0	3
			13	4	15
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BIO	109	Human Anatomy and Physiology II	3	2	4
PHY	108	Physics	3	2	4
PSY	201	General Psychology	3	0	3
NMT	103	Nuclear Medicine Technology III	1	0	1
Elective			3	0	3
			16	4	18

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
PED	185	First Aid and Safety	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BIO	209	Radiobiology	3	0	3
NMT	104	Nuclear Medicine Technology IV	2	0	2
NMT	129	Practicum I	0	12	4
CHM	101	General Chemistry I	3	3	4
			14	15	19
FALL QUARTER					
NMT	116	Nuclear Physics	2	0	2
NMT	269	Practicum II	0	24	8
NMT	111	Principles of Nuclear Medicine I	2	0	2
NMT	255	Introduction to Radioimmunoassay	1	2	2
NMT	256	Nuclear Medicine Chemistry	3	2	4
			8	28	18
WINTER QUARTER					
NMT	274	Practicum III	0	24	8
NMT	230	Nuclear Medicine Instrumentation I	3	2	4
NMT	221	Principles of Nuclear Medicine II	2	0	2
NMT	223	Radiopharmaceuticals I	2	0	2
NMT	117	Health Physics	1	0	1
NMT	268	Open Lab Practicum I	0	6	2
			8	32	19
SPRING QUARTER					
NMT	279	Practicum IV	0	24	8
NMT	240	Nuclear Medicine Instrumentation II	3	2	4
NMT	241	Principles of Nuclear Medicine III	2	0	2
NMT	233	Radiopharmaceuticals II	2	0	2
NMT	273	Open Lab Practicum II	0	6	2
NMT	289	Radiobiology	1	0	1
			8	32	19

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
NMT	284	Practicum V	0	24	8
NMT	251	Principles of Nuclear Medicine IV	2	0	2
NMT	290	Nuclear Medicine Technology Seminar	2	0	2
NMT	278	Open Lab Practicum III	0	6	2
			4	30	14
		TOTAL HOURS	90	155	145

NURSING—ASSOCIATE DEGREE (T-059)

(DEGREE OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians', offices; industry; and, in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

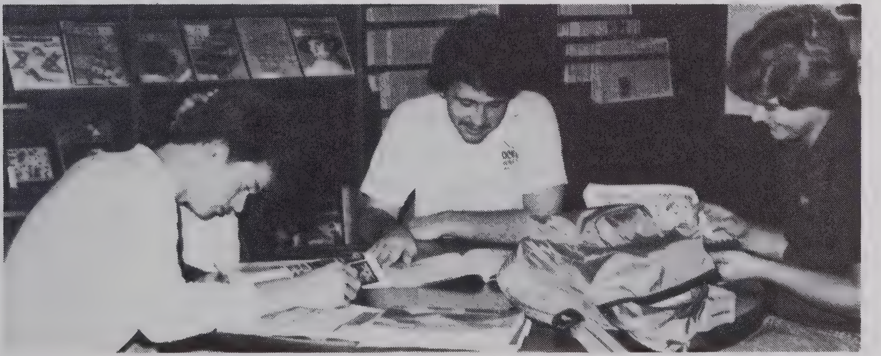
FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	9	9
NUR	102	Nutrition	3	0	3
			18	14	23

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical-Surgical I	8	0	8
NUR	105	Medical-Surgical I Lab	0	15	5
BIO	135	Microbiology	2	2	3
			16	17	22
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	106	Maternal-Infant Health I	4	0	4
NUR	107	Maternal-Infant Health I Lab	0	6	2
NUR	108	Child-Health Nursing I	4	0	4
NUR	109	Child-Health Nursing I Lab	0	6	2
			11	12	15
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
			9	18	15

SECOND LEVEL—REGISTERED NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
BIO	108	Human Anatomy and Physiology I	3	2	4
NUR	200	Psychiatric Nursing	6	0	6
NUR	201	Psychiatric Nursing Lab	0	9	3
PSY	213	Abnormal Psychology	3	0	3
BIO	135*	Microbiology			
			12	11	16



		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
NUR	202	Maternal-Infant Health II	4	0	4
NUR	203	Maternal-Infant Health II Lab	0	6	2
NUR	204	Child Health Nursing II	4	0	4
NUR	205	Child Health Nursing II Lab	0	6	2
			11	14	16
SUMMER QUARTER					
ENG	102	English Composition	3	0	3
NUR	206	Medical-Surgical III	6	0	6
NUR	207	Medical-Surgical III Lab	0	15	5
			9	15	14
FALL QUARTER					
ENG	104+	Report Writing	3	0	3
NUR	208	Medical-Surgical IV	6	0	6
NUR	209	Medical-Surgical IV Lab	0	18	6
NUR	210	Seminar II	3	0	3
			12	18	18
		TOTAL HOURS	98	119	139

*BIO 135 required for those not meeting the requirement their first year.
+ENG 103 may be substituted for ENG 104.

OCCUPATIONAL THERAPY ASSISTANT (T-142)

CAREER INFORMATION

Occupational therapy is a health profession providing services to people whose lives have been affected by impairment or pathology, such as cerebravascular accident (stroke); arthritis; cerebral palsy; mental retardation; spinal cord injury; amputation; trauma; burns; visual, auditory, and speech disorders; or psychiatric problems. Occupational therapy serves in a variety of settings, including hospitals and clinics, rehabilitation facilties, long-term care facilities, sheltered workshops, day-care centers, schools, camps, private homes, and community agencies and centers.

The term "occupation" means being occupied in meaningful day-to-day activities including work, play, and leisure. Occupational therapy translates the ability to move into activities that are personally fulfilling.

The certified occupational therapy assistant (COTA) is one who has completed an occupational therapy assistant curriculum and passed national certification examination by the American Occupational Therapy Association. The occupational therapy assistant program at Caldwell Community College and Technical Institute consists of six quarters for a total of 107 quarter hours to receive an A.A.S. degree. The program provides excellent opportunity for employment as well as for continuing one's education in the field of occupational therapy.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the OTA program, see the student handbook, the college registrar, or the OTA coordinator.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
OTA	101	Orientation to Prog. and Intro. to Occupational Therapy (Field Exp.)	3	3	4
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
PSY	201	General Psychology	3	0	3
BIO	105	Basic Life Science	4	2	5
OTA	102	Occupational Therapy Theory I	3	1	3
OTA	106	Occupational Therapy Media	1	4	3
			13	10	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
PSY	210	Human Growth and Development	3	0	3
PSY	206	Interpersonal Skills	3	0	3
OTA	104	Occupational Therapy Theory II	3	2	4
			15	4	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	201	Introduction to Sociology	3	0	3
OTA	105	Occupational Therapy Theory III	3	2	4
OTA	107	Medical Conditions	3	0	3
Elective			3	0	3
			21	2	22

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
PED	212	Kinesiology	3	2	4
OTA	103	Major Crafts and Their Application	1	4	3
OTA	202	Occupational Therapy Theory IV	3	3	4
PSY	213	Abnormal Psychology	3	0	3
			13	9	17
WINTER QUARTER					
PED	185	First Aid and Safety	3	0	3
REC	103	Recreation Programming	3	0	3
OTA	201	The Mature Years-Gerontology	3	2	4
OTA	203	Occupational Therapy Theory V	3	2	4
HEA	200	Allied Health Management Procedures	3	0	3
Elective			3	0	3
			18	4	20
SPRING QUARTER					
OTA	204	Occupational Therapy Fieldwork II	0	40	13
SUMMER QUARTER					
OTA	205	Occupational Therapy Fieldwork II (optional internship)	0	40	13
		TOTAL HOURS	80	72	107

PARALEGAL TECHNOLOGY (T-120)

CAREER INFORMATION

The paralegal technology curriculum is designed to train individuals to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in the conduct of more complicated and difficult tasks. The legal technician should be capable of doing independent legal work under the supervision of a lawyer and search out information and court facts for the lawyer. Training will include general subjects such as English, accounting, and psychology, as well as specialized legal courses such as court systems, laws, and techniques of investigation.

Graduates of the paralegal technology program should be able to directly assist a lawyer or group of lawyers in most facets of law, but they must always work under the supervision of a lawyer. The legal technician will not be qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to the lawyer. Employment opportunities are available in public and private firms and with individual lawyers.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
LEG	101	Introduction to Paralegalism	3	0	3
LEG	135	Legal Systems and Litigation Preparation	5	0	5
LEG	113	Family Law I	3	2	4
			18	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	115	Business Law I	3	0	3
LEG	114	Family Law II	3	2	4
LEG	116	Contract Law	4	0	4
LEG	140	Bankruptcy and Collection	4	0	4
			17	2	18
SPRING QUARTER					
BUS	116	Business Law II	3	0	3
LEG	132	Legal Research	3	6	6
ENG	104	Report Writing	3	0	3
LEG	117	Torts	4	0	4
Elective			3	0	3
			16	6	19
FALL QUARTER					
BUS	120	Accounting I	3	2	4
BUS	102	Typing I	2	3	3
LEG	214	Property I	3	0	3
LEG	204	Investigation	5	0	5
LEG	217	Elements of Criminal Law and Procedures	4	0	4
			17	5	19
WINTER QUARTER					
SPH	101	Speech	3	0	3
LEG	215	Property II	3	0	3
LEG	227	Estate Management I	3	0	3
LEG	225	Law Office Management	3	0	3
LEG	218	Civil Procedures and Discovery	4	0	4
Elective			3	0	3
			19	0	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
LEG	216	Property II	3	0	3
LEG	228	Estate Management II	3	0	3
LEG	250	Clinical Practice	1	12	5
Elective			3	0	3
Elective			3	0	3
			13	12	17
		TOTAL HOURS	100	30	112

PARALEGAL TECHNOLOGY

*Part-Time Curriculum**

BUS	102	Typing	2-3-3
BUS	115	Business Law I	3-0-3
BUS	116	Business Law II	3-0-3
BUS	120	Accounting I	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
LEG	101	Introduction to Paralegalism	3-0-3
LEG	113	Family Law I	3-2-4
LEG	114	Family Law II	3-2-4
LEG	116	Contract Law	4-0-4
LEG	117	Torts	4-0-4
LEG	132	Legal Research	3-6-6
LEG	135	Legal Systems and Litigation Preparations	5-0-5
LEG	140	Bankruptcy and Collection	4-0-4
LEG	204	Investigation	5-0-5
LEG	214	Property I	3-0-3
LEG	215	Property II	3-0-3
LEG	216	Property III	3-0-3
LEG	217	Elements of Criminal Law and Procedures	4-0-4
LEG	218	Civil Procedures and Discovery	4-0-4
LEG	225	Law Office Management	3-0-3
LEG	227	Estate Management I	3-0-3
LEG	228	Estate Management II	3-0-3
LEG	250	Clinical Practice	1-12-5
MAT	110	Business Math	5-0-5
SPH	101	Speech	3-0-3

*Usually evenings.

PUBLIC ADMINISTRATION (T-146)

Evening Program Only

CAREER INFORMATION

This career program is designed to prepare individuals for mid-management level positions in state and local governments and non-profit organizations. It is geared to prepare individuals currently employed in the public sector for advancement opportunities, as well as to provide for those persons desiring to prepare for a future career in governmental or non-profit organizational agencies.

The program is designed to enable the students to enter the public sector with skills that make them productive immediately. It provides the career employee with motivation and advantages for further advancement in the career service of local government.

The program offers the student an opportunity to begin or to continue a career in the public administration with an associate in applied science degree or to take courses for personal enrichment.

Reading level of 12.0 or RDG 101 required for graduation.

BUS	115	Business Law	3-0-3
BUS	119	Introduction to Public Administration	3-0-3
BUS	120*	Principles of Accounting	3-2-4
BUS	121*	Principles of Accounting	3-2-4
BUS	122	Principles of Accounting	3-2-4
BUS	233	Personnel Management	3-0-3
BUS	238	Problems of Public Administration	3-0-3
BUS	240	Public Finance	3-0-3
BUS	272	Principles of Supervision	3-0-3
BUS	277	Application in Public Administration I	2-6-4
BUS	278	Application in Public Administration II	2-6-4
BUS	279	Internship in Public Administration	1-18-7
BUS	282*	Governmental Accounting	3-0-3
ECO	201*	Principles of Economics I	3-0-3
ECO	202*	Principles of Economics II	3-0-3
EDP	104	Introduction to Data Processing	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
POL	201	American Federal Government	3-0-3
POL	203	Government—State and Local	3-0-3
PSY	201	General Psychology	3-0-3
PSY	202	General Psychology	3-0-3
SOC	101	Community Resources	3-0-3
SOC	201	Introduction to Sociology	3-0-3
SOC	203	Contemporary Social Issues	3-0-3
SPH	101	Fundamentals of Speech	3-0-3
Elective			12-0-12
		TOTAL HOURS	88 41 103

*In addition to the electives, proficiency credit may be substituted for up to 26 hours in the areas identified.

RADIOLOGIC TECHNOLOGY—RADIOGRAPHY (T-061)

CAREER INFORMATION

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiographers. The radiographers perform an important function in the rapidly growing branch of medicine known as radiology. Radiographers are support personnel for radiologists, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiographer should like people and be able to attend the sick and disabled with tact and sympathy. He/she should be dependable, accurate, and determined to continue with education beyond certification to keep up with new developments in the field.

The program in radiologic technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution or in programs of nuclear medicine and radiation therapy. Graduates of the associate in applied science degree program are eligible to take the American Registry in Radiologic Technology examination and, upon successful completion of this test, may become registered radiographers.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. The radiologic technology program is a 24 continuous month program. A grade of "C" must be maintained in all radiology courses. The clinical technique courses will be of 11 weeks duration.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	2
BIO	125	Medical Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection I	1	0	1
			7	3	8

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	101	College Mathematics	3	0	3
BIO	105	Basic Life Science	4	2	5
RDT	109	Introduction to Clinical Technique	0	6	2
RDT	110	Introduction to Radiographic Technique	1	2	2
RDT	111	Radiographic Procedures I: Extremities	6	2	7
RDT	115	Radiographic Processing	1	2	2
BIO	126	Medical Terminology II	1	0	1
			18	17	25
WINTER QUARTER					
ENG	102	English Composition	3	0	3
PHY	107	Physics	3	2	4
BIO	107	Human Anatomy and Physiology -Rad.	3	2	4
RDT	112	Radiographic Evaluation	1	2	2
RDT	113	Radiographic Procedures II: Skull and Spine	6	2	7
RDT	114	Clinical Technique I	0	15	5
			16	23	25
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
PHY	108	Physics	3	2	4
RDT	116	Radiographic Procedures III Trauma and GI Procedures	4	0	4
RDT	117	Clinical Technique II	0	24	8
			10	28	20
SUMMER QUARTER					
RDT	118	Radiographic Procedures IV— Urinary and Reproductive Radiography	1	2	2
BIO	209	Radiation Biology	3	0	3
PED	185	First Aid and Safety	3	0	3
RDT	119	Clinical Technique III	0	24	8
RDT	120	Imaging Modalities	3	0	3
			10	26	19

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
RDT	210	Radiographic Equipment and Accessories	3	0	3
RDT	211	Clinical Technique IV	0	24	8
RDT	212	Radiographic Procedures V: Angiography Report Writing	3	0	3
ENG	104	Report Writing	3	0	3
			12	24	20
WINTER QUARTER					
BIO	208	Introduction to Study of Disease	3	0	3
PSY	201	General Psychology	3	0	3
RDT	213	Principles of Exposure I	3	0	3
RDT	214	Clinical Technique V	0	24	8
RDT	215	Radiographic Procedures VI: Pediatric and Dental Radiography	3	0	3
			12	24	20
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
RDT	216	Principles of Exposure II	2	2	3
RDT	217	Clinical Technique VI	0	24	8
RDT	218	Radiographic Procedures VII: Special View of Whole Skeleton	2	0	2
Elective			3	0	3
			10	26	19
SUMMER QUARTER					
HEA	200	Allied Health Management	3	0	3
RDT	219	Radiation Protection II	2	0	2
RDT	220	Quality Control Seminar	2	2	3
RDT	221	Clinical Technique VII	0	24	8
Elective			3	0	3
			10	26	19
		TOTAL HOURS	105	197	175

RECREATION LEADERSHIP (T-083)

The Recreation Leadership curriculum at Caldwell Community College and Technical Institute is designed to develop recreation leaders for a variety of agencies serving the community's leisure time needs. The curriculum provides the student with the skills and background knowledge to work as an activity director of sports, arts and crafts, or to supervise and conduct programs for recreation facilities in public, private, commercial, and institutional settings.

		COURSE TITLE	CLASS	LAB	CREDIT
Required Core Recreation Courses					
REC	101	Introduction to Recreation	5	0	5
REC	102	Recreation and Special Populations	3	0	3
REC	103	Recreational Programming	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	208	Intramurals and Sports Management	0	6	2
REC	209	Field Work	0	9	3
REC	210	Field Work	0	15	5
REC	211	Recreation Seminar	1	0	1
			15	30	25

Outdoor Sports and Skills

This requirement is met by completing 18 credit hours from any of the following:

PED	101	Physical Activities for Children	2	2	3
PED	110	Archery	0	2	1
PED	111	Badminton	0	2	1
PED	113	Beginning Golf	0	2	1
PED	114	Physical Fitness	0	2	1
PED	115	Beginning Tennis	0	2	1
PED	116	Beginning Skiing	0	2	1
PED	117	Beginning Swimming	0	2	1
PED	125	Backpacking and Mountain Climbing	0	2	1
PED	132	Soccer	0	2	1
PED	133	Softball	0	2	1
PED	135	Canoeing	0	2	1
PED	140	Ice Skating	0	2	1
PED	141	Horseback Riding	0	2	1
PED	200	Intermediate Tennis	0	2	1
PED	201	Introduction to Physical Education	3	0	3
PED	213	Advanced Golf	0	2	1
PED	215	Advanced Tennis	0	2	1
REC	106	Camping	5	0	5
REC	203	Water Sports	1	4	3
REC	205	Outdoor Education	3	0	3

Health and Personal Awareness

This requirement is met by completing 9 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	180	Personal and Community Health	3	0	3
PED	185	First Aid and Safety	3	0	3
PED	212	Physiology of Muscular Exercise	3	2	4
PSY	206	Interpersonal Skills	3	0	3
PSY	209	Human Sexual Behavior	3	0	3
REC	202	Recreational Leadership	3	0	3

Social Science

This requirement is met by completing 15 credit hours from any of the following:

HEA	110	Gerontology I: Aging Process	3	0	3
PSY	201	General Psychology	3	0	3
PSY	202	General Psychology II	3	0	3
PSY	203	Adolescence Psychology	3	0	3
PSY	204	Child Behavior	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	213	Abnormal Psychology	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
REC	104	Rehabilitation	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems	3	0	3
SOC	205	Marriage and the Family	3	0	3

Humanities/Communications

This requirement is met by completing the following courses:

ENG	101	Grammar and Composition	2	3	3
ENG	102	English Composition	3	0	3
ENG	103	Introduction to Literature	3	0	3
or					
ENG	104	Report Writing	3	0	3
RDG	101	Reading	1	3	2
SPH	101	Fundamentals of Speech	3	0	3

Cultural Arts & Skills

This requirement is met by completing 12 credit hours from any of the following:

ART	112	Beginning Drawing	2	2	3
ART	113	Basic Design and Composition	2	2	3
ART	115	Beginning Painting	2	2	3
ART	120	Ceramics I	2	2	3
ART	124	Sculpture	2	2	3
ART	127	Arts and Crafts I - Creative Crafts	1	4	3
ART	128	Arts and Crafts II	1	4	3
ART	204	Art for Preschool Children	2	2	3
DRA	201	Introduction to Drama	2	2	3
EDU	200	Movement/Drama and Play	3	2	4
MUS	101	Music Appreciation	3	0	3
MUS	105	Chorus	0	2	1
MUS	106	Voice	0	2	1
MUS	107	Piano	0	2	1
MUS	111	Guitar	0	2	1
MUS	112	Band	0	2	1
PED	118	Aerobic Dancing	0	2	1
PED	151	Modern Dance	0	2	1
PED	152	Folk Dancing	0	2	1
PED	154	Social Dance	0	2	1
REC	121	Social Recreation	3	0	3
REC	215	Recreational Dance	1	4	3

Electives

This requirement is met by completing 3 credit hours from any 100 through 299 course.

TOTAL CREDIT HOURS - 99

SECRETARIAL SCIENCE (T-030) (T-032)

CAREER INFORMATION

The graduates of this program should have a knowledge of the terminology peculiar to the major area, skill in dictation, and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

Reading level of 12.0 or RDG 101 required for graduation.

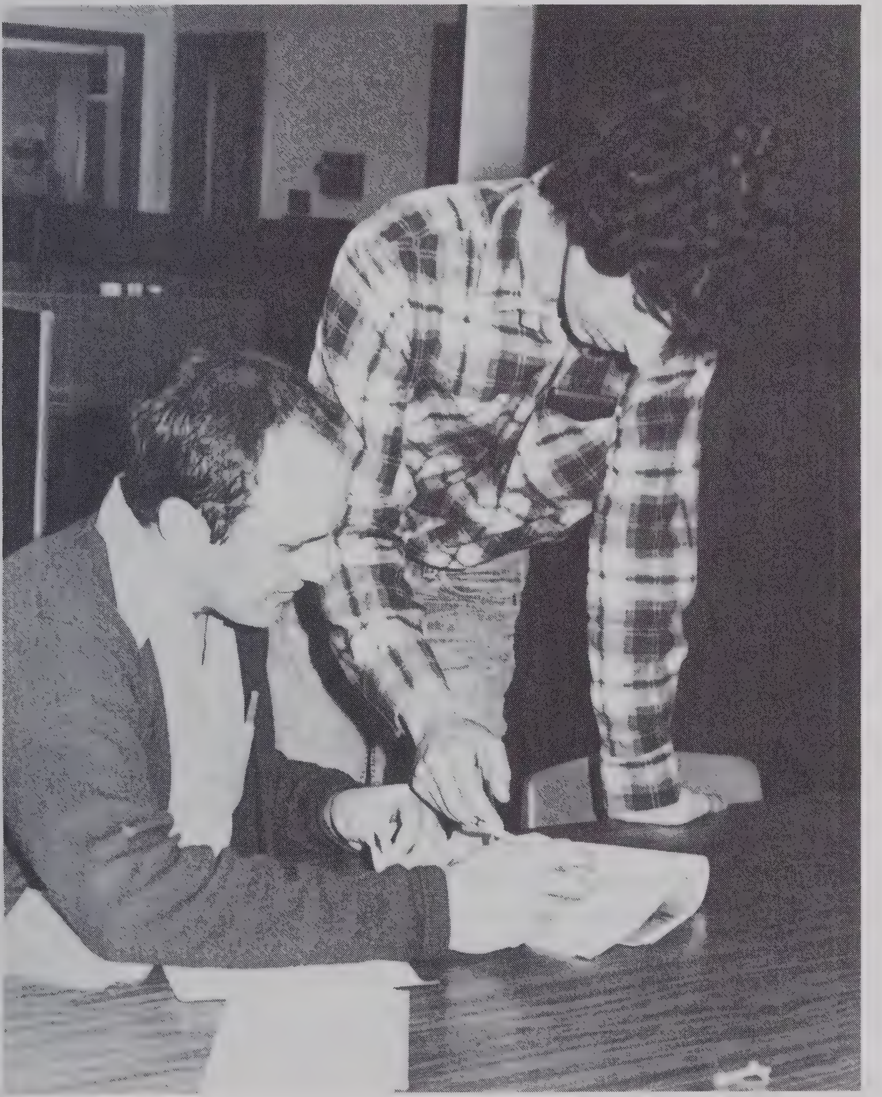
EXECUTIVE SECRETARY OPTION (T-030)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101*	Grammar and Composition	2	3	3
MAT	110*	Business Math	5	0	5
BUS	101*	Introduction to Business	5	0	5
BUS	102*	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
			16	9	19
WINTER QUARTER					
ENG	102*	English Composition	3	0	3
BUS	103*	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110*	Office Machines	2	2	3
BUS	115*	Business Law	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Introduction to Data Systems	3	2	4
BUS	104*	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	134*	Personal Development	3	0	3
BUS	214*	Secretarial Procedures	3	2	4
			13	10	17
FALL QUARTER					
SPH	101*	Fundamentals of Speech	3	0	3
BUS	120*	Principles of Accounting	3	2	4
BUS	205*	Word Processing I	2	3	3
BUS	206E	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17
WINTER QUARTER					
ENG	105*	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207E	Dictation and Transcription	3	2	4
BUS	211*	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16

SPRING QUARTER

BUS	208E	Dictation and Transcription	3	2	4
BUS	247*	Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	82	46	100

*A certificate is awarded for satisfactory completion of these courses.



MEDICAL SECRETARY OPTION (T-032)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
BIO	115	Human Anatomy for Medical Secretaries	3	0	3
			14	9	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110	Office Machines	2	2	3
BUS	183M	Terminology and Vocabulary I	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Intro. to Data Systems	3	2	4
BUS	104	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	214	Secretarial Procedures	3	2	4
BUS	284M	Terminology and Vocabulary II	3	0	3
			13	10	17
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	120	Principles of Accounting	3	2	4
BUS	205	Word Processing I	2	3	3
BUS	206M	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17
WINTER QUARTER					
ENG	105	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207M	Dictation and Transcription	3	2	4
BUS	211	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16

SPRING QUARTER

BUS	134	Personal Development	3	0	3
BUS	208M	Dictation and Transcription	3	2	4
BUS	247	Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	80	46	98

COLLEGE TRANSFER ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREE PROGRAMS

The associate in arts and associate in science degree programs are designed for persons who are planning to transfer to a four-year college or university. These programs provide opportunities to complete the first two years of general college courses, with some degree of specialization. Caldwell Community College and Technical Institute offers the following associate in art and associate in science degree programs:

ASSOCIATE IN ART
  PRE-ART
  PRE-BUSINESS ADMINISTRATION
  PRE-BUSINESS EDUCATION
  PRE-FURNITURE
  PRE-LIBERAL ARTS
  PRE-PHYSICAL EDUCATION
  PRE-PUBLIC ADMINISTRATION
  PRE-RECREATIONAL
  PRE-TEACHING (ELEMENTARY AND SECONDARY)
ASSOCIATE IN SCIENCE
  PRE-ENGINEERING
  PRE-SCIENCE

ASSOCIATE IN ARTS

Associate in arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 (''C'') or better.

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, 103, Speech 101, and Reading 101* or an approved equivalent.	14
Humanities This requirement is met by completing 9 hours from ''A'' below and 6 hours	15

from "B" below.	
A. Literature, or	
Language (Advanced Spanish 211, 212, 213)	
B. Music Appreciation, Art History, American Music,	
Philosophy, Religion, Humanities, Studies in Fiction	
Mathematics	6
This requirement is met by completing	
Math 101 and 102 or Math 111 or higher	
Natural Science	12
Biology, Physical Science, Physics,	
Chemistry, Astronomy, Physical Geography	
Social Science	15
This requirement is met by completing	
History 101, 102, 103 and 6 hours	
from any of the following: Economics,	
Regional Geography, Political Science,	
Sociology, Anthropology, Psychology,	
History.	
Physical Education†	3
Electives	31
TOTAL QUARTER HOURS	96

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which the student plans to transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ART

Pre-art is offered to students with talent and/or interest in the arts. Senior institutions offer majors in painting, sculpture, ceramics, commercial art, interior design, art history, studio art, and art education.

The transfer students will be adequately prepared to move into a specialized art curriculum upon completion of this pre-art program.

Pre-art majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required electives hours: Art 100, Art 102, Art 112, Art 113, Art 114, Art 115, Art 124, Art 201, Art 218, Art 203, Education 201, and Physics 101.

PRE-BUSINESS ADMINISTRATION

The curriculum for the student in business administration includes a broad foundation in liberal arts and professional courses that begins to prepare a person to meet the changing complexities of life and leadership in the business community. Upon receiving the A.A. degree, the student will find a wide range of exciting careers in the business and industrial fields. The graduate's selection of professional studies at the senior institution in business administration, economics, marketing, insurance, management, finance, industrial relations, and many other related fields will lead to meaningful managerial positions in business, government, and nonprofit organizations.

Pre-business majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 101, Business 120, Business 121, Business 122, Economics 201, Economics 202, and Economics 203.

PRE-BUSINESS EDUCATION

Business education, sometimes referred to as "distributive education," provides students the opportunity to obtain the first two years of undergraduate studies toward a baccalaureate degree in business education and a class "A" teaching certificate in basic and comprehensive teaching or distributive education teaching. In addition, the opportunity exists for students to continue in the same program for a nonteaching degree in office administration.

Pre-business education majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 102, Business 103, Business 104, Economics 201, Economics 202, Economics 203, Business 106, Business 107, Business 108, Business 120, Business 121, and Business 122.

PRE-FURNITURE

In North Carolina, the furniture industry ranks third in terms of its dollar volume of sales and second in terms of its employment. In order to meet the increasing demand for furniture products, the industry is rapidly changing toward mechanization and more sophisticated management controls.

The transfer students will be adequately prepared to move into a specialized furniture curriculum upon completion of the pre-furniture program and the awarding of the associate in arts degree.

Pre-furniture majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Furniture 102, Furniture 103, Furniture 104, Furniture 108, Furniture 109, and Furniture 201.

PRE-LIBERAL ARTS

The liberal arts curriculum has been designed to prepare the student for entrance with advanced standing to colleges and universities that grant the bachelor's degree; to assist the individual in exploring the major fields of study; and to prepare a person to meet the needs of his total environment through this study of liberal arts courses. Liberal arts courses, in their full context, open the way to help the student understand the condition of man's existence, through the study of ideas and experiences in a variety of subjects and disciplines.

The A.A. degree in liberal arts provides the educational foundation for curriculum degree programs at the senior institution in art, drama, literature, modern languages, music, philosophy, journalism, speech, history, political science, psychology, sociology, anthropology, biology, chemistry, mathematics, and earth science, to mention only the main areas. Candidates for the associate in arts degree in pre-liberal arts meet all requirements for the degree.

PRE-PHYSICAL EDUCATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses supported by learning experiences in a variety of activity skill courses. Introductory courses in physical education with primary emphasis on knowledge of basic health, fitness, and physiological principles relating to physical activity will be emphasized.

Pre-physical education majors must fulfill all requirements for an associate of arts degree. The following courses are required as part of the required elective hours: Physical Education 201, Physical Education 180, Physical Education 185, and six (6) physical education activity courses, including physical fitness. Biology 108 and Biology 109 (anatomy and physiology) and related recreation courses are recommended electives for pre-physical education majors, but students are advised to check transferability to senior institutions.

PRE-PUBLIC ADMINISTRATION

Caldwell Community College and Technical Institute offers a pre-public administration program to both present and future government employees, as well as to other interested citizens.

The program is designed to enable the student to enter public service with skills that make him/her productive immediately. It provides career employees with motivation and advantages to further themselves in the career service of the local government.

The program offers the student an opportunity to transfer to a senior institution and to continue a career in public service administration.

In addition to the general requirements for a student to receive the associate in arts degree, the pre-public administration major will take Business 119. Business 238, Business 240, Business 277, Business 278, Business 279, and Business 246. Sufficient electives should be taken to meet degree requirements.

PRE-RECREATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses complete with an understanding about man's recreational behavior. The pre-recreation curriculum provides educational preparation for students who will seek careers in a wide variety of business service agencies at the local, regional, state, and national levels. The senior institution offering a degree in recreation allows students to major in concentrations in municipal recreation, industrial recreation, park management, camping, ecology, therapeutic recreation, music or theatre art, and other programs dealing in youth services, corrective institutions, and recreation for the elderly.

The following hours are required to receive an associate in arts degree in pre-recreation:

	Quarter Hours Credit
Communication Arts	14 hours
English 101, 102, 103 Reading 101 or equivalent	
Humanities	15 hours
9 hours; Literature or Spanish 211, 212, 213 6 hours: Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction, Introduction to Drama	
Mathematics	6 hours
Math 101, 102, 111 or higher	
Natural Science	12 hours
Physical Science	
Social Science	15 hours
9 hours: History 101, 102, 103 6 hours: Sociology 101, Psychology 201, 202	
Physical Education	3 hours
Electives	31 hours
Suggested electives: Art 127, Education 200 Education 104, Health 100, Physical Ed. 180, Physical Ed. 185, Psychology 213, Psychology 215, Recreation 101, Recreation 102, Recreation 103, Recreation 105, Recreation 106, Recreation 201, Recreation 202, Recreation 203, Recreation 205, Recreation 208.	
	Total 96 hours

PRE-TEACHING (K-3; 4-9; 10-12)

The State of North Carolina Department of Public Instruction provides teacher certification in the following three categories: early childhood education (kindergarten through grade three); intermediate education (grade four through nine);

and secondary school education (grade ten through twelve).

Students seeking certification in early childhood education (K-3), will, upon transfer, begin a specialized curriculum emphasizing appropriate values and techniques that should equip the teacher with the competency and understanding essential to teaching children in the early years. Those wishing to be certified for the intermediate grade (4-9) will, upon transfer, choose an appropriate subject or concentration in language, arts, mathematics, science, or social studies. A second area is recommended and is generally selected from the fields of library science, reading, special education, art, music, or physical education. Students whose major is K-3 or 4-9 are advised to take physical science. The following courses are suggested electives to be included in the required elective hours for the K-9 level: Art 204 or 127; Business 195; Education 101; Education 200; Education 201; Education 202; Education 203; Education 220; Education 221; History 201; History 202; History 203; Physical Education 101; Physical Education 185; and Speech 100. Students seeking certification in mathematics or science must complete the requirements for the associate in science degree.

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better:

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, and 103, and Reading 101* or an equivalent.	11
Humanities This requirement is met by completing 9 hours in Literature, Music Appreciation, Art History, Religion, Studies in Fiction, Humanities, or Philosophy.	9
Mathematics This requirement is met by completing 15 hours from courses numbered 113 or higher. (Courses numbered below 113 may be taken for elective credit.)	15
Natural Science This requirement is met by completing 3 quarters of two of the following sciences: Biology, Physical Science, Physics, or Chemistry.	24
Social Science This requirement is met by completing 6 hours in History and 6 hours in Economics, Regional Geography, Political Science, Psychology, Sociology, Anthropology, or History.	12
Physical Education†	3
Electives	22
TOTAL QUARTER HOURS	96

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which you will transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading diffculties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his/her reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ENGINEERING

The pre-engineering program is designed to prepare students to continue studies toward the baccalaureate degree in engineering at senior institutions. In view of the emphasis on mathematics and sciences, students who decide upon this program should possess high academic potential and should have demonstrated above average mathematical ability.

Students contemplating an engineering career should contact the school of engineering of their choice in order to obtain additional information as to degree requirements. If possible, applicants seeking a degree in engineering at the senior institution should plan to enter summer school to make up required technical courses missed during the first two years.

Careers in engineering offer vast opportunities in the business and industrial world. Degrees generally offered in schools of engineering consist of aerospace, chemical, civil, electrical, engineering mechanics, industrial, mechanical and nuclear, in addition to many other engineering options.

Pre-engineering majors must fulfill all requirements for the associate in science degree. The following courses are suggested electives to be included in the required elective hours: Engineering 101, Engineering 102, and Data Processing 125.

PRE-SCIENCE

The pre-science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science and mathematics. The courses are chosen with the student in mind who seeks to obtain a sound education in mathematics and the physical sciences with a wide variety of major fields of interest.

The main objective of this program is to prepare future leaders in the field of science ranging from teaching in higher education to the research specialist.

Candidates for the associate in science degree in pre-science must meet all requirements for the degree.

COURSE DESCRIPTIONS

GENERAL COURSE DESCRIPTIONS SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER
W	Course will be offered WINTER QUARTER
S	Course will be offered SPRING QUARTER
SS	Course will be offered SUMMER QUARTER
D	Course will be offered when sufficient students and instructor are available.
N	Designates a NURSING course.
E	Designates an EXECUTIVE SECRETARY course.
M	Designates a MEDICAL SECRETARY course.

Some numbers with 3 digits represent college transfer courses.
Some numbers with 3 digits represents two-year occupational courses.
Numbers with a "T" and 3 digits represent some two-year occupational courses.
Numbers with 4 digits represent one-year occupational courses.
Students should check with senior colleges of their choice for the transferability of courses.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

ENG 203 English Literature	Class	Lab	Quarter Hours Credit
	3	**0**	**3**

In order to determine contact hours, add class hours and lab hours. For example:

ART 120 Ceramics I	Class	Lab	Quarter Hours Credit
	2	**2**	**3**

Two class hours plus two lab hours equal four contact hours. Where no prerequisite is listed, none is required.

AIR CONDITIONING

AHR 101 Air Conditioning and Refrigeration 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101 Automotive Air Conditioning 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR-A 1101 (Part-time) 3 0 3

AHR-B 1101 (Part-time) 0 3 1

ANTHROPOLOGY

ANT 201 Introductory Anthropology 3 0 3

An overview of the field of anthropology. Includes physical evolution of mankind, biological variation within and between human populations, historical development of cultures, and cultural dynamics viewed analytically and comparatively. (D)

ANT 202 Cultural Anthropology 3 0 3

The science of the enculturation of man. Includes ethnography, ethnology, inter-relationships between peoples and their environments, social anthropology, and lingustics. Prerequisite: ANT 201. (D)

ART

ART 102 Art History 3 0 3

An historical survey of painting, sculpture, and architecture from the ancients through the twentieth century. (F/W/S/SS)

ART 103 Art Introduction 3 0 3

An introductory study of fundamental elements and principles of creative artistic expression with an emphasis on composition, design, shape, value, styles, and movements. (D)

ART 112 Beginning Drawing 2 2 3

A study of rudimentary drawing techniques with an emphasis on design and spatial relations in line, texture, value, and volume. (D)

ART 113 Basic Design and Composition 2 2 3

A study of art elements, concepts, media, and principles of organization with a special emphasis on developing competencies in the art process. (D)

ART 114 Intermediate Design and Composition 2 2 3

A continued study of ART 113 with a special emphasis on expanding skills in the arts process through exploration with the art elements, concepts, media, and principles of organization. (D)

ART 115 Beginning Painting 2 2 3

A study of painting materials, techniques, form relations, and color through acrylics, watercolors, and mixed media with an emphasis on developing multiple means of perceiving perspective, tones, periphery, size relations, expansion, linear, chiaroscuro, and skills to render these perceptions. (D)

ART 120 Ceramics I 2 2 3

A study of clay mixing, glazing, and firing with an emphasis on wheel throwing and handbuilding techniques. (D)

ART 124 Sculpture 2 2 3

A study in principles of sculpture with an emphasis on studio instruction through modeling, casting, constructing, and carving from studies of nature and the human figure. (D)

ART 127 Arts and Crafts I 1 4 3

A study of theories and concepts in structuring two and three dimensional forms with an emphasis on basic application through use of various materials such as flower construction, candle making, decoupage, ceramics, and book printing. (W)

ART 128 Arts and Crafts II 1 4 3

A study in designing three dimensional forms with an emphasis on leather crafts, copper tooling, and macrame. (D)

ART 129 Arts and Crafts III 1 4 3

A study of advanced problems of structuring three dimensional forms with an emphasis on individual expression in leather crafts, macrame, and handmade pottery. (D)

ART 201 Constructive Design in Plastic 2 2 3

A study of plastic media foundation with an emphasis on creative synthesis of plastic design concepts. (D)

ART 202 Constructive Design in Fabric 2 2 3

A study of basics in fiber construction. (D)

ART 203 Constructive Design in Alloys 2 2 3

An introductory study of alloys and related media. (D)

ART 204 Art for Children 2 2 3

A study of art for young children focusing on theory, methodology, materials, usage, and specific art activities appropriate for the young child. (D)

ART 218 Printmaking 2 2 3

An introductory study of basic printmaking processes, including relief printing, with an emphasis on student involvement. (D)

ASTRONOMY

AST 101 Elementary Descriptive Astronomy 2 2 3

A nonmathematical descriptive study of the solar system, (including the sun, moon, planets, meteors, comets) astronomical instruments and their uses, stars and star systems, nebulae, quasars, and galaxies. Laboratory topics include time latitude and longitude, tides, seasons, optics, and observations using the telescope. (S/D)

AUTOMOTIVE

AUM 1101 Automotive Mechanics I 4 12 8

A course to develop a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Includes a study of the construction and operation of components of internal combustion engines. Also covers testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing. (F)

AUM-A 1101 (Part-time) 2 6 4

AUM-B 1101 (Part-time) 2 6 4

AUM 1102 Automotive Mechanics II 4 12 8

A thorough study of the electrical and fuel systems of the automobile to include battery cranking mechanism, generator, ignition, accessories, wiring, fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system are also included. (W)

AUM-A 1102 (Part-time) 2 6 4

AUM-B 1102 (Part-time) 2 6 4

AUM 1103 Automotive Mechanics III 4 12 8

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair, and the servicing of park brakes. Includes principles and functions of the components of automotive chassis and practical job instruction in adjusting and repairing of suspension systems. (S)

AUM-A 1103 (Part-time) 2 6 4

AUM-B 1103 (Part-time) 2 6 4

AUM 1104 Automotive Mechanics IV 4 12 8

A study of the principles and functions of automotive power train systems. Includes clutches, transmission gears, torque converters, drive shaft assemblies, rear axles, and differentials. Also covers identification of troubles, servicing, and repair. (SS)

AUM 1104-A (Part-time) 2 6 4

AUM 1104-B (Part-time) 2 6 4

AUM 1105 Auto Servicing 3 9 6

A course emphasizing the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. Includes a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: AUM 1102, AUM 1103, AHR 1101 or off-campus instruction in the auto repair environment. A minimum of one quarter previous attendance and the prerequisites AUM 1104 and BUS 1103. (SS)

AUM-A 1105 (Part-time) 1 3 2

AUM-B 1105 (Part-time) 1 3 2

AUM-C 1105 (Part-time) 1 3 2

PME 1121 Braking System (Truck) 2 3 3

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate and their proper adjustment and repair. (D)

PME 1126 Small Engine Repair 2 3 3

A course offered to train in the maintenance and overhaul of two- and four-cycle engines. Students learn to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major features of the course. (D)

PME 1184 Co-op Work. (Min.) 0 15 5

A full-time or part-time prearranged on-the-job training course. The student is placed in a garage to gain experience during the summer and by contract, verbal or written agreement, returns to the institution for the fall term. The student enrolls at the school and is supervised by the instructor. Prerequisite: Three or more quarters of instruction. (SS/D)

PME 1202 Auto Electrical/Electronics 4 9 7

A thorough study of the theory and operation of various automobile electrical units and systems. Covers maintenance and testing procedures, diagnosis, and repair of all types of electrical/electronic components, especially the transistor circuits found on the modern automobile. Prerequisite: AUM 1102.

PME-A 1202 (Part-time) 2 6 4

PME-B 1202 (Part-time) 2 3 3

PME 1203 Automotive Engine Tune-up 4 9 7

A course designed to provide depth in understanding and skill in the use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units of the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate ability in diagnosing malfunctions in ignition systems, cranking motors, and charging circuits. Prerequisite: AUM 1102, DFT 1102 or equivalent work experience. (D)

PME-A 1203 (Part-time) 2 6 4

PME-B 1203 (Part-time) 2 3 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, and proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, and proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1221 Front Suspension, Alignment, and Power Steering 1 3 2

A course covering the theory of operation, correct disassembly, and mounting of all front suspension parts on various types of automobile and light truck frames. The course will provide a thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, and rams. Includes theory and application of steering geometry, correct diagnosis of problems, use of the alignment and balancing machines, and analysis and correction of tire wearing problems, vibrations, hard steering, and pulling. Prerequisite: AUT 1123. (D)

PME 1224 Advanced Automatic Transmissions 3 12 7

A course designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, functions, construction, operation, servicing and "trouble-shooting" procedures, and repair of various types of automatic transmission. Prerequisite: PME 1124 or work experience. (D)

PME-A 1224 (Part-time) 2 6 4

PME-B 1224 (Part-time) 1 6 3

PME 1225 Auto Engine Trouble-Shooting 2 9 5

A course in the general principles of engine "trouble-shooting," including the electrical and fuel systems. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: AUM 1101 or work experience. (D)

PME-A 1225 (Part-time) 1 6 3

PME-B 1225 (Part-time) 1 3 2

PME 1226 Automobile Servicing II 1 3 2

A course emphasizing "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in-depth experiences in diagnosis, testing, adjusting, repairing, and replacing component parts. Prerequisite: AUT 1125.(D)

PME-A 1226 (Part-time) 1 6 3

PME-B 1226 (Part-time) 1 3 2

PME 1227 Power Accessories 5 0 5

A course designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas, etc. It should insure the development of the student's ability to understand

and trace out the circuits of the electrical accessories and to enhance skills in diagnosing troubles and repairing damaged circuits. Includes application of knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience. (D)

AUB 1101 Auto Body Repair I **4 12 8**

A study of the basic principles of automobile construction, design, and manufacturing. Includes a thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

AUB-A 1101 (Part-time) **2 6 4**

AUB-B 1101 (Part-time) **2 6 4**

AUB 1102 Auto Body Repair II **4 12 8**

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders and metal working and painting.

AUB-A 1102 (Part-time) **2 6 4**

AUB-B 1102 (Part-time) **2 6 4**

AUB 1103 Auto Body Repair III **4 12 8**

A course to develop skill in shrinking stretched metal; soldering and leading; preparing metals for painting; straightening of doors, hoods, and deck lids; fitting and aligning; painting fenders and panels; spot repairs; and complete vehicle painting. The student learns the use and application of power tools.

AUB-A 1103 (Part-time) **2 6 4**

AUB-B 1103 (Part-time) **2 6 4**

AUB 1104 Auto Body Repair IV **4 12 8**

A general introduction to and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames, front wheel alignment, methods of removing and installing interior trim, and cutting, sewing, installing, and fitting headlinings, seat covers, and door trim panels. All phases of training are applied. The course also covers repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster.

AUB-A 1104 (Part-time) **2 6 4**

AUB-B 1104 (Part-time) **2 6 4**

AUB 1105 Auto Body Shop Application **3 9 6**

An extensions study of topcoats and their applications, with further development in the skills of spot painting with acrylic lacquer and acrylic enamel. Includes application of overall finishes such as acrylic lacquer, acrylic enamel, synthetic enamel, and polyurethane enamel; refinishing problems; and cures. Emphasis is placed on the final job appearance, detailing, neatness, and quality of repairs. Also covers development of skills in repair order writing, estimating, customer relations, and final settlement with insurance companies. Prerequisite: AUB 1101, AUB 1102. (SS)

AUB-A 1105 (Part-time) 1 3 2

AUB-B 1105 (Part-time) 1 3 2

AUB-C 1105 (Part-time) 1 3 2

IMPORTED CAR OPTION

AUT 1145 Transaxle Operation and Repair 3 9 6

A study of the combination transmission and differential (transaxle) used on imported rear engine units with emphasis on diagnosing and repairing malfuntions. (D)

AUT 1146 The Air-Cooled Engine 2 6 4

A course designed to help the student understand the basic differences in liquid-cooled and the air-cooled engine. The horizontally-opposed and inline engine will be considered. (D)

AUT 1147 Imported Car Carburetion 2 6 4

A course covering the different types of carburetion used on imported cars. Included will be fuel injection and carburetors of the downdraft, sidedraft, and updraft type. (D)

AUT 1150 Imported Car Valve Trains 2 6 4

A study of the valve systems used in imported cars. Includes conventional cam shaft and both single and double overhead cam shaft type train systems. (D)

AUT 1154 The Wankel Engine 3 9 6

A course covering the wankel rotary engine used in some imported cars. Both the single rotor and double rotor are included. Models of the engine are disassembled and reassembled and the component parts studied. (D)

AUT 1158 Front Wheel Drive System 2 6 4

A study of the systems used in many imported cars to provide front wheel drive. Includes a study of constant velocity universal joints and specialized differentials. (D)

BIOLOGY

BIO 101 General Biology 3 3 4

An introduction to the biological concepts, including a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat.(F/SS)

BIO 102 General Biology 3 3 4

A continuation of BIO 101, including a study of various plant groups approached from the point of structure, function, and habitat. Prerequisite: BIO 101. (W/SS)

BIO 103 General Biology 3 3 4

A continuation of BIO 102 with emphasis on specific concepts such as genetics and evolution. Prerequisite: BIO 102. (S/SS)

BIO 105 Basic Life Science 4 2 5

A study of the normal structure and related functioning of the human body which is identified as a living organism composed of living cells, tissues, organs, and systems. The normal body is studied as a basis for understanding variations from the normal and the human's need to maintain homeostasis. Included are the skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary and nervous systems, and the special sense organs. Elementary principles and concepts of chemistry, microbiology, and physics are presented with emphasis on the application of these principles to the relationships between structures and functions of the normal human body. Encompasses bacterial anatomy, physiology, and immunology in laboratory portions with relevant experiments to augment the student learning of body structure and function. (D)

BIO 107 Human Anatomy and Physiology for Radiology 3 2 4

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Relevant pathophysiology is included in connection with this study. The systems covered include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. This course differs from BIO 108 only in that this course has a strong emphasis on the skeletal system with decreased emphasis on the other systems covered in this course. Prerequisite: BIO 105. (W)

BIO 108 Human Anatomy and Physiology I 3 2 4

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Those principles of chemistry and physics which are supportive of these understandings are included along with the relevant pathophysiology. The systems covered will include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 105. (W/SS)

BIO 109 Human Anatomy and Physiology II 3 2 4

A continuation of BIO 108 providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology. Those principles of chemistry and physics which are supportive of these understandings are included, along with the relevant pathophysiology. The systems covered include reproductive, digestive, endocrine, integumentary, urinary, fluid, and electrolytes. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 108. (F/SS)

BIO 115 Human Anatomy for Medical Secretaries 3 0 3

A general survey of human anatomy covering the reproductive, endocrine, circulatory, urinary, respiratory, nervous, digestive, skeletal, muscular, and integumentary systems. The course is designed as a preparatory course for medical terminology courses. (F)

BIO 125 Medical Terminology I 1 0 1

The first in a series of two courses which includes terms related to all areas of medical science, hospital service, and para-medical specialities. Terms introduced parallel the topics covered in Anatomy and Physiology I. (F)

BIO 126 Medical Terminology II 1 0 1

The second in a series of two courses in which terms related to all areas of medical science, hospital service, and para-medical specialities are introduced. Prerequisite: BIO 125. (W)

BIO 135 Microbiology 2 2 3

A study of microscopic units of the human body as well as microorganisms. Emphasis is placed on the etiology of pathogens with special considerations given to pathogenicity, virulence, resistance, control, and immunity. Prerequisite: BIO 105. (W/SS)

BIO 139 Topographical Anatomy 2 0 2

A study of visualizing the patient's surface anatomy. Major emphasis is placed on learning the topographical location of internal organs, muscles, nerves and nerve plexuses, blood vessels, bony prominences, and techniques of palpation of structures not visually evident. Radiology is stressed throughout the course since the technique defines structures not recognized by visual inspection or palpation. Living anatomy is stressed throughout the course, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: NMT 102. (S)

BIO 201 Botany I 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of nonseed producing plants. Prerequisite: BIO 103. (D)

BIO 202 Botany II 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of seed producing plants. Prerequisite: BIO 201. (D)

BIO 206 Invertebrate Zoology 3 2 4

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103. (D)

BIO 207 Vertebrate Zoology 3 2 4

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103.(D)

BIO 208 Introduction to Study of Disease 3 0 3

A study of the general principles involved in the living body. Each organ and system of organs will be looked at closely. Points of interest for the diagnostic technologist are covered. Prerequisites: BIO 108, BIO 109. (W)

BIO 209 Radiation Biology 3 0 3

A course designed to help the student understand the effects of ionizing radiation in the biologic system and to increase awareness of the public right to minimal radiation exposure. (SS)

BIOMEDICAL ELECTRONICS TECHNOLOGY

BMT 201 Medical Institutions 3 0 3

A motivational and career orientation course designed to prepare the student to enter the health care industry with some degree of general sophistication and awareness. Hospital functions and design, a brief description of most medical specialities and para-medical occupations, and the professional and social interrelationship between these groups are covered. (F)

BMT 228 Practicum 0 39 13

A course providing supervised work experience on a schedule satisfactory to the employer, the institution, and the student. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. Prerequisite: Satisfactory completion of six quarters of the biomedical equipment technology program. (S)

BMT 244 Safety Inspections and Standards 2 4 4

A review of biomedical instrumentation with emphasis on safety. Particular attention is given to all aspects which involve physical or biological hazards to patients or operating personnel. National, state, and local standards are reviewed and methods of implementing standards are studied. (W)

BMT 254 Biomedical Instrumentation I 2 4 4

The first in a series of three courses of medical instrumentation. Designed to provide the student with a background on the course of the segual for a given instrument, the basis on which the measurement is made, and the use of the results as related to medical instrumentation. (SS)

BMT 264 Biomedical Instrumentation II 2 4 4

A continuation of BMT 254. Provides an indepth analysis of the basic medical instrumentation circuits. Experiments are provided for each circuit. Prerequisite: BMT 254. (F)

BMT 271 Biomedical Instrumentation III 2 4 4

A continuation of BMT 264. Describes the theory and operation of actual medical instruments. Experiments are provided to build, calibrate, and test medical instruments. Prerequisite: BMT 264. (W)

BMT 274 Biomedical Instrumentation: X-Ray and Nuclear Medicine 2 4 4

A course designed to provide the technician with an understanding of the workings of the component parts of radiation producing, detecting, and measuring equipment and with the ability to maintain, repair, and adjust this equipment. Prerequisite: Approval of instructor. (F)

BMT 280 Biomedical Instrumentation Troubleshooting 2 4 4

A course presenting basic problems involving tracking down and identifying problems frequently encountered with various types of medical instrumentation. Much time is spent developing logical troubleshooting techniques such as backtracking and the half split rule. Any clinical or monitoring devices may be used for laboratory exercises. Mechanical as well as electronic problems are considered. Prerequisite: Approval of instructor. (W)

BUSINESS EDUCATION

BUS 090 Basic Accounting 3 2 4

A course designed to provide the student with a basic understanding of accounting. Emphasis is placed on the fundamentals of accounting in an effort to give the student a strong foundation for entry into Accounting I. Covers the basic accounting cycle of journalizing, posting, and preparation of the work sheet and financial statements, adjusting and closing entries, and the post-closing trial balance. Completion of this course does not earn credit toward the completion of a diploma or a degree. (D)

BUS 101 Introduction to Business 5 0 5

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. (S)

BUS 102 Typewriting 2 3 3

An introduction to the touch-typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. (F/W/S/SS)

BUS 103 Typewriting 2 3 3

A continuation of BUS 102 with emphasis on the development of speed and accuracy with further mastery of correct typewriting techniques. These skills are applied in correspondence, tabulation, manuscripts, and business forms. Prerequisite: BUS 102 or approval of instructor. (F/W/S/SS)

BUS 104 Typewriting 2 3 3

A continuation of BUS 103 with emphasis on production typing and speed building. Attention is given to the student's ability to function as an expert typist, producing mailable copies. Units of production include correspondence, tabulation, manuscripts, medical reports, legal documents, accounting reports, and programs. Prerequisite: BUS 103 or the equivalent. (W/S)

BUS 106 Shorthand 2 3 3

A study of the principles of Gregg Shorthand, including a presentation of theory and extensive practice in reading and writing shorthand, with emphasis on phonetics, penmanship, word families, brief forms, and phrases. (F)

BUS 107 Shorthand 2 3 3

A continuation of the study of shorthand theory with more emphasis on speed, accuracy, fluency, and vocabulary. Includes an introduction to transcription—minimum dictation rate of 60 words a minute with a minimum of 95 percent accuracy, on new material. Prerequisite: BUS 106. (F/W)

BUS 108 Shorthand 2 3 3

A study of theory and speed building with an emphasis on development of speed in dictation and speed accuracy in transcription. Includes an introduction to office style dictation with minimum dictation rate of 70 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 107. (W/S)

BUS 110 Office Machines 2 2 3

A general survey of business and office machines. Students receive training in techniques, processes, operation, and application of adding machines and electronic calculators. (W/S)

BUS 111 Collecting and Reporting Information 2 2 3

A course designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis is placed on accurate methods of collecting and presenting data in an effective method. (F)

BUS 112 Personal Finance 3 0 3

A course covering personal and family finance, budgeting, saving, insurance, real estate, stock market, and other investment media. (D)

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instrument, and agencies. (F/W)

BUS 116 Business Law 3 0 3

A course including the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115. (W)

BUS 119 Introduction to Public Administration 3 0 3

A survey of the practices and political relationships in public administration leadership, decision making, personnel, and budgetary functions within governmental agencies. Includes analysis of the role of the public administrator in contemporary government and an examination of the implementation of public policy at all levels of government with emphasis on local and municipal institutions. (F)

BUS 120 Principles of Accounting 3 2 4

A study of methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, and methods and practices applicable to formal organizations. (F)

BUS 121 Principles of Accounting 3 2 4

A continuation of the study of accounting principles and practices with emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120. (W)

BUS 122 Principles of Accounting 3 2 4

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, and current problems presented in accounting literature and business cases. Prerequisite:BUS 121. (S)

BUS 123 Business Finance 3 0 3

A study of the financing of business units as individuals, partnerships, corporations, trust. A detailed study is made of short-term, long-term, and consumer financing. (F)

BUS 124 Business Finance 3 0 3

An examination of financing in federal, state, and local government and the ensuing effects upon the economy, with a look at factors affecting the supply of funds and monetary and credit policies. Prerequisite: BUS 123. (W)

BUS 134 Personal Development 3 0 3

A course designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal development. (S)

BUS 162 Fundamentals of Real Estate I 6 0 6

An introductory course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Students will study fundamental principles and theories of real estate. Topics covered include terminology, North Carolina's licensing law, organizational structure, brokerage, contracts, leases, and ownership. (D)

BUS 163 Real Estate Law 3 0 3

A second course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Topics include fundamental operation of real estate, the real estate industry and its relationship to financing, appraising and law, listing and closing of real estate, and building construction. Prerequisite: BUS 162 or instructor approval. (D)

BUS 164 Real Estate Financing 3 0 3

A third course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Topics include fundamental operation of real estate, the real estate industry and its relationship to financing, appraising and law, listing and closing of real estate, and building construction. Upon successful completion of BUS 162, BUS 163, and BUS 164, students will have met the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Prerequisite: BUS 162 or instructor approval. (D)

BUS 183M Terminology and Vocabulary 3 0 3

A course designed to develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. (W)

BUS 195 Small Business Management 3 0 3

A course designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. Provides practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis is placed on organization, financing, recordkeeping, and management. (F)

BUS 205 Word Processing I 2 3 3

A course emphasizing the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. The use of transcribing machines is taught with specific emphasis on the operation of word processing equipment. Prerequisite: BUS 104. (F)

BUS 206E Dictation and Transcription 3 2 4

A course designed to develop the skill of taking dictation and transcribing at the typewriter materials appropriate to the course study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. A minimum dictation rate of 80 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Prerequisite: BUS 108. (F)

BUS 206M Dictation and Transcription 3 2 4

A course designed to help the student learn the fundamentals of medical transcription. Medical dictation is accurately transcribed using medical dictionaries, spelling guides, and other standard reference sources. Students become familiar with the various types of medical reports, records, and acceptable initials and abbreviations for medical terminology. Prerequisite: BUS 108. (F)

BUS 207E Dictation and Transcription 3 2 4

A course designed to help develop the accuracy, speed, and vocabulary necessary to meet the stenographic requirements of business and professional offices. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Opportunities for application of transcription skills are available through limited hours of work experience in the CCC & TI word processing center. Prerequisite: BUS 206E. (W)

BUS 207M Dictation Transcription 3 2 4

A course emphasizing accurate production of medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 206M. (W)

BUS 208E Dictation and Transcription 3 2 4

A speed-building course, principally, but also with a focus on accuracy. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Limited hours of transcription experience are gained in CCC & TI's word processing center. Prerequisite: BUS 207E. (S)

BUS 208M Dictation and Transcription 3 2 4

A course emphasizing accurate medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 207M. (S)

BUS 211 Word Processing II **0 6 2**

A course providing instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205. (W)

BUS 212 Business Machine Transcription **1 2 2**

A study and practice in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles are emphasized. Prerequisite: BUS 103. (D)

BUS 214 Secretarial Procedures **3 2 4**

A course designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. (S)

BUS 215E Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 215M Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 217 Business Law **3 0 3**

A study of the powers, policies, methods, and procedures used by the various federal, state, and local administrative agencies in promoting and regulating business enterprises. Includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action. Prerequisite: BUS 116. (D)

BUS 219 Credit Procedures **3 0 3**

A study of the principles and practices in the extension of credit. Includes collection procedures and law pertaining to credit extension and collection. (W)

BUS 220 Intermediate Accounting **3 2 4**

A thorough treatment of the field of general accounting providing the necessary foundation for specialized studies and emphasis on financial statements, the accounting process, and current assets. Prerequisite: BUS 122. (F)

BUS 221 Intermediate Accounting **3 2 4**

A theoretical review of accounting principles with emphasis on noncurrent assets, liabilities, and paid-in capital. The present value concept of evaluating investment proposals is introduced. Prerequisite: BUS 220. (W)

BUS 222 Intermediate Accounting 3 2 4

A continued study of accounting principles with emphasis on retained earnings, financial statement analysis, correcting errors, and reporting price level change. Prerequisite: BUS 221. (S)

BUS 225 Cost Accounting 3 2 4

A detailed study of systems of cost accounting including process, job orders, and standards costs. Usefulness of data to management is stressed. Prerequisite: BUS 121. (F)

BUS 229 Taxes I 3 2 4

A study of the application of federal and state taxes to various businesses and business conditions including income, payroll, intangible, capital gain, and sales taxes and their uses. Prerequisite: BUS 121. (W)

BUS 230 Taxes II 3 2 4

A study of the application of federal and state taxes to individuals, business partnerships, and corporations. Includes franchise, excise, gift, income, and inheritance taxes. Prerequisite: BUS 229. (S)

BUS 232 Sales Development 3 0 3

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for an execution of sales demonstrations is required. (S)

BUS 233 Personnel Management 3 0 3

A study of the principles of organization and management of personnel: procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits, and security. (F)

BUS 235 Business Management 3 0 3

A study of the principles of business management including an overview of major functions of management such as planning, staffing, controlling, directing, and financing. Covers clarification of the decision making function versus the operating function. Includes role of management in business qualifications and requirements. Prerequisites: BUS 101, BUS 121. (S)

BUS 237 Wholesaling 3 0 3

A study of the developments of wholesaling. Includes present day trends in the United States and functions of wholesaling. (D)

BUS 238 Problems of Public Administration 3 0 3

An analysis of contemporary problems related to the administration of public organization. Includes problems of authority, communication, control, leadership, and responsibility. Case studies are reviewed and resource people in the profession are consulted for their knowledge and personal experience in the field. (S)

BUS 239 Marketing 5 0 5

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. (F)

BUS 240 Public Finance 3 0 3

A study of the fundamental principles of public finance, the economics of government expenditure and the revenue policy, the shifting and the incidence of taxation, expenditure decisions and the cost-benefit analysis for the budgeting system, and the relations of government finance to its economy. Special emphasis is directed to expenditures for the taxation for the State of North Carolina and its local government. (F)

BUS 243 Advertising 3 2 4

An examination of the role of advertising in a free economy and its place in the media of mass communications. Includes a study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Covers theory and practice in writing advertising copy for various media. (F)

BUS 245 Retailing 3 0 3

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. (D)

BUS 246 Municipal Public Relations 3 0 3

A course covering the complex areas of public opinions, public attitudes, and public information. Designed to teach all personnel to act efficiently in these areas and to make good public relations integral to the duty's administrative practice. (D)

BUS 247 Insurance 3 0 3

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. (S)

BUS 266 Budget and Record Keeping 3 0 3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 121. (D)

BUS 269 Auditing 3 2 4

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 122. (D)

BUS 271 Office Management 3 0 3

A study presenting the fundamental principles of office management with emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems. (S)

BUS 272 Principles of Supervision 3 0 3

An introduction to the basic responsibilities and duties of the supervisor and his/her relationship to superiors, subordinates, and associates. Emphasis is on securing an effective work force and role of the supervisor. Methods of supervision are stressed. (S)

BUS 275 Programming **3 0 3**

A course designed to provide the student with the basic concepts of programming for easy mastery of any specific system with the minimum of additional instruction. The logic required in computerized problem solutions is also stressed. Flowcharts and the BASIC language are combined to help the student meet the logic and programming objectives. For non-Business Data Systems students. Prerequisite: EDP 104. (F)

BUS 276 Money and Banking **3 0 3**

An application of money and banking theory and procedures including the functions of money, various phases of customer relations with banks, bank administrative policies, the Federal Reserve System, specialized financial institutions, and international monetary principles. Prerequisite: ECO 202. (S)

BUS 277 Application in Public Administration I **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are position classification survey, personnel policy, job specifications, performance appraisal study, employee attitude survey, employee handbook, pay plan, personnel audits, utilization of records, and suggestion of award systems. (F)

BUS 278 Application in Public Administration II **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are fiscal administration—local government budget and finance administration; economic approaches to urban problems—zoning, urban renewal, public housing, welfare problems, revenue sharing, and crime; and public finance—tax policies and taxation, budget determinations, and the budget process. (W)

BUS 279 Internship in Public Administration **1 18 7**

A course providing for participation in the activities of an administrative agency under the joint supervision of a faculty member and the agency.

BUS 282 Governmental Accounting **3 0 3**

An application of accounting principles of government and problems related to governmental appropriations and allotments, encumbrances, and fund accounting. Prerequisite: BUS 122. (W)

BUS 284M&E Terminology and Vocabulary **3 0 3**

A course placing emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: 183M. (S)

BUS 285 Cost Records and Estimates **2 0 2**

A study of cost estimation, equipment, materials and labor takeoff, and overhead cost. The advantages and limitations of prorating items of cost are considered. Prerequisite: MAT 110 or approval of instructor. (SS)

BUS 1101 Cost Records and Cost Estimates 2 0 2

A survey of estimates of cost (materials, labor, overhead, etc.). Materials cost deals with price grade, costs of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. (D)

BUS 1103 Small Business Operations 3 0 3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SS)

BUS 1105 Industrial Organizations 3 0 3

A study of the methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Includes an introduction to the competitive system and the factors constituting product cost. (SS)

BUS 1134 Personal Development 3 0 3

A course designed to teach the student the importance of good personality and to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in dress, make-up, hygiene, and health. (D)

INS 214 General Insurance—Part I—Introduction 2 0 2

An introductory course which should enable the student to identify the types of risk and how to apply the risk management concept to said risks; to discuss the various types of insurance and functions of insurance companies; and to interpret the various laws and regulations affecting the insurance industry. (D)

INS 215 General Insurance—Part II—Life, Accident, Health 2 0 2

A continuation of INS 214, this course should enable the student to discuss exposures, types, policy provisions, and practices of life, health, and accident insurance; to program life and health insurance; to interpret the regulations and laws specifically applying to life, health, and accident agents; and to describe the various social insurance plans. Prerequisite: INS 214. (D)

INS 216 General Insurance—Part III—Fire and Casualty 2 0 2

A continuation of INS 215, this course will enable the student to discuss automobile insurance, general liability exposures and insurance, worker's compensation, commercial fire and other insurances, home owner's insurance, crime insurance, and government fire and casualty insurance. Prerequisite: INS 216. (D)

BUSINESS DATA SYSTEMS

EDP 101 Computers and Programming I (RPG) 4 4 6

An introduction to computers and computer programming. The course includes history of computers, data representation, numbering system, flow charting, and an introduction to the RPG programmming language. (W)

EDP 102 Computers and Programming II (RPG Disk-Tape) 4 4 6

A continuation of EDP 101 in which students learn advanced features of RPG and file organization on disk and tape. Prerequisite: EDP 101. (S)

EDP 103 Computers and Programming III (COBOL) 4 4 6

A study of the fundamentals of the COBOL language using structured COBOL. Prerequisite: EDP 102. (F)

EDP 104 Introduction to Data Systems 3 2 4

An introduction to the fundamental concepts and operational principles of data systems. The material and presentation are designed to familiarize non-data systems students with computer systems and the BASIC programming language. (F/S)

EDP 108 Assembler Language 2 4 4

The study of symbolic computer languages with emphasis on a particular example of such a language. The student develops program logic and writes programs using assembler language to solve appropriate assigned problems. (D)

EDP 125 Computer Programming 2 2 3

A course designed to help students learn to write and execute computer programs in the FORTRAN language. Computerized solutions of problems in the mathematical, scientific, and engineering areas are emphasized. (D)

EDP 204 Computers and Programming IV (COBOL Disk-Tape) 4 4 6

A continuation of EDP 103 in which the student applies advanced procedures of file organization on disk and tape, utilizing structured COBOL and the report writer feature. Prerequisite: EDP 103 or instructor approval. (W)

EDP 208 Systems Orientation 4 4 6

A survey of the techniques utilized in the development of information systems with emphasis on the role of computers. Prerequisite: EDP 204. (S)

EDP 214 Practicum I 0 15 5

A course providing practical experience in a data systems installation. The time and location vary. Prerequisite: EDP 204 and approval of instructor. (W)

EDP 215 Practicum II 0 15 5

An opportunity for the student to spend time in a data systems installation. Time and place vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214 and approval of instructor. (S)

EDP 217 Data Processing Project 1 8 5

A quarter devoted to the solution of a practical case study with minimum supervision. Prerequisite: approval of instructor. (W/SS)

EDP 220 Applied Business Systems 3 0 3

A continuation of management systems applied to information data flow. Practical work in systems flow charting and analysis is implemented. The conduction of feasibility studies; the preparation and maintenance of standard practice, policies, and organization manuals; and computer applications are stressed. Prerequisite: approval of instructor. (D)

EDP 221 BASIC Programming Language 2 2 3

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive BASIC. Prerequisite: EDP 101 or instructor approval.

EDP 222 User/Vendor Programs 2 2 3

A study of the documentation, application, and use of various user/vendor supplied programs. Prerequisite: approval of department. (D)

CARPENTRY

CAR 1101 Carpentry 3 15 8

A brief history of carpentry and present trends of the construction industry. The course involves operation, care, and safe use of carpenter's hand tools and power tools in cutting, shaping, and joining construction materials. Major topics of study include theoretical and practical application involving materials and methods of construction, building layout, preparation of site, footings and foundation, and wall construction, including form construction and erection. (D)

CAR 1102 Carpentry: Millwork and Cabinetmaking 3 15 8

A course in cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment is emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes are also studied. Prerequisites: CAR 1101, DFT 1110. (D)

CAR 1103 Carpentry: Framing 3 15 8

A study of the principles and practices of frame construction beginning with the foundation sills and including floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisites: CAR 1101, DFT 1111. (D)

CAR 1104 Carpentry: Finishing 3 18 9

A study of exterior and interior trim and finish carpentry, completing the general carpentry program. Includes materials and methods used in finishing carpentry such as exterior cornice, door, and window trim; interior flooring; door and window facing; moldings; cornice construction; installation of hardware; and installation of built-in equipment and cabinets. Prerequisites: CAR 1103, DFT 1111. (D)

CAR 1113 Carpentry: Estimating 3 3 4

A study of building codes and the minimum requirements for local, county, and state construction regulations. Involves safety, sanitation, mechanical equipment, and materials. Also includes a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. Prerequisites: CAR 1103, CAR 1104. (D)

CHEMISTRY

CHM 101 General Chemistry I **3 3 4**

A basic course designed to provide a foundation of essential facts and underlying principles in chemistry. Fundamental concepts, chemical symbols, fundamental particles, atomic structure, use of periodic chart, and scientific measurements are covered. (F)

CHM 102 General Chemistry II **3 3 4**

A continuation of CHM 101 to include a study of chemical bonding, chemical kinetics, kinetic theory of gases, solutions, chemical thermodynamics, and electrochemistry. Prerequisite: CHM 101. (W)

CHM 103 General Chemistry III **3 3 4**

A continuation of CHM 102 with a study of acid-base reactions, oxidation-reducing reactions in water and the environment, air pollution, introduction to organic and biochemistry, and nuclear chemistry. Prerequisite: CHEM 102. (S)

CHM 201 Organic Chemistry **3 3 4**

A study of the nature and characteristics of chemical bonds in hydro-carbons, classification of hydrocarbons, sterochemistry, resonance, tautomerism and aromaticity, chemical reactivity and molecular structure, organic reactions, and chemistry of natural products. Prerequisites: CHM 101, CHM 102, and CHM 103. (D)

CHM 202 Organic Chemistry **3 3 4**

A continuation of Chemistry 201. Prerequisite: CHM 201. (D)

CHM 203 Organic Chemistry **3 3 4**

A continuation of Chemistry 202. Prerequisite: CHM 202. (D)

CHM 225 Biochemistry **3 0 3**

A brief introductory course covering an elementary study of the physical and chemical nature of the cell and biochemical properties and functions of cellular components. Also covers metabolism and the biological importance of carbohydrates, fats, proteins, enzymes, nucleic acids, and hormones. This course should be of interest to allied health and para-medical students. Prerequisite: CHM 103. (D)

CO-OPERATIVE EDUCATION

COE 101-112 Co-operative Education Internship **0 10 1**

Through the Co-operative Education Program, the student works in a position related to his program of study and/or career interest and for an employer selected and /or approved by the department chairperson. The student is supervised periodically by a faculty member. Normal credit hours for the field work part of a co-operative program are determined by dividing the average number of hours worked per week by ten. A student may receive a maximum of four credit hours during any one quarter and a maximum of twelve credit hours toward degree requirements. Prerequisite: Student must have completed 10% of courses required for a degree. (D)

COSMETOLOGY

COS 1001 Scientific Study I **4 6 6**

A course for beginners in cosmetology. Includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. (F)

COS 1002 Scientific Study II **5 0 5**

A classroom study of skin, scalp, hair, nails, and their disorders. Includes salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. Prerequisite: COS 1101. (F)

COS 1003 Scientific Study III **5 0 5**

A classroom study of anatomy, manicuring, chemistry, cosmetics, facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming, and hygiene. Prerequisite: COS 1002. (F)

COS 1004 Scientific Study IV **5 0 5**

A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving, and hair shaping. Prerequisite: COS 1003. (W)

COS 1005 Public Relations for Cosmetologists **3 0 3**

A course focusing on public relations as it pertains to the cosmetology profession. Students must have accumulated 1200 hours previously in a cosmetology school as a prerequisite for the course. Prerequisite: COS 1004, COS 1044. (D)

COS 1006 Beauty Salon Business Operations **3 0 3**

A course designed for advanced students of cosmetology who have completed 1200 contact hours in a school of cosmetic art. The student will learn the basic problems of business operations, the types of business organizations, record keeping for a small business, financial aspects of a business, and proper physical facilities of a beauty salon. Prerequisites: COS 1004, COS 1044. (D)

COS 1011 Mannequin Practice **1 18 7**

A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care, and styling. Prerequisite: COS 1004. (W)

COS 1022 Clinical Application I **0 24 8**

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hair coloring, and hair cutting. Prerequisite: COS 1011. (S)

COS 1022-1 (Part-time) **0 6 2**

COS 1022-2 (Part-time) **0 24 8**

COS 1033 Clinical Application II 0 24 8

A course providing continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics, facials, hair styling, hair coloring (rinses, etc.), and scalp treatments. Prerequisite: COS 1022. (SS)

COS 1033-1 (Part-time) 0 15 5

COS 1033-2 (Part-time) 0 9 3

COS 1044 Clinical Application III 0 24 8

A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. Prerequisite: COS 1033. (D)

COS 1044-1 (Part-time) 0 3 1

COS 1044-2 (Part-time) 0 21 7

COS 1055 Chemistry Relating to Cosmetology 3 0 3

An in-depth study of the advanced principles of chemistry as related to cosmetology. Includes definitions, descriptions, and identification through classroom study, examinations, and demonstrations on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

COS 1066 Hairstyling II 1 18 7

An in-depth study of the advanced principles of hairstyling. Includes hair fashion, advanced hair cutting, hair coloring, permanent waving techniques, and analysis. Emphasis is placed on design to include structure, balance, harmony, rhythm, and emphasis. Also consists of constructive and remedial techniques on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

DRAFTING

DFT 101 Technical Drafting 2 8 5

An introductory study of the graphic language, principles of mechanical drawing, and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project, and sectional views. (F)

DFT 101F Furniture Drafting 2 6 4

An introduction to the field of drafting through the study of the graphic language. The student learns how to freehand letter, construct geometric figures, do freehand sketching, visualize shapes of objects, make multiview drawings, and construct sectional views. (F/W/S)

DFT 102 Technical Drafting 2 8 5

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions, and the importance of shop processes, dimensioning, and tolerance. Includes introduction to drawing of threads, fasteners, and springs and the execution of design and working drawings. Prerequisite: DFT 101. (W)

DFT-A 102 (Part-time) 1 6 3

DFT-B 102 (Part-time) 1 2 2

DFT 102F Furniture Drafting 2 6 4

A continuation in the study of drafting and how it relates to the furniture industry. Construction details are drawn. Includes drawing joints used in furniture construction. The student makes a variety of drawings of various pieces of furniture. (F/W/S)

DFT 103 Technical Drafting 2 8 5

A study of the practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments are studied, along with the drawing of gears, cams, and electronic diagrams and reproduction and control of drawings. Prerequisite: DFT 102. (S)

DFT-A 103 (Part-time) 1 6 3

DFT-B 103 (Part-time) 1 3 2

DFT 103F Furniture Drafting 2 6 4

A course designed to aid the student in freehand sketching for the purpose of communicating in the shop. Simple shapes are studied and drawn. The student progresses from the simple to the more complex drawings. Shading is also studied. (F/W/S)

DFT 104 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints with information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes. (D)

DFT 105 Blueprint Reading and Sketching 0 3 1

A continued practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketching as a means of passing on ideas, information, and processes. Prerequisite: DFT 104. (D)

DFT 110 Mechanics Drafting Interpretation I 1 3 2

A study in the interpretation and reading of blueprints. Includes development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, dimensioning procedures, and notes. Also includes a study of components that make up the front suspension, differential assembly, and brake assemblies. (F)

DFT 111 Mechanics Drafting Interpretation II 1 3 2

A study in interpretation and reading of schematic prints and diagrams. Includes making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Also covers learning to identify the various components of the systems by sketching and labeling parts. Provides practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 110. (W)

DFT 112 Auto Body Drafting Interpretation 1 3 2

A study in the interpretation and reading of blueprints. Includes the development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, and dimensioning procedures as applied to the auto body. (S)

DFT 113 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints. Includes information on the basic principles of the blueprint lines, dimensioning procedures, and notes. (F)

DFT 114 Blueprint Reading: Mechanical 0 3 1

A further practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketches as a means of passing on ideas, information, and processes. Prerequisite: DFT 113. (W)

DFT 115 Blueprint Reading: Mechanical 0 3 1

An advanced course in blueprint reading and sketching as related to detail and assembly used in machine shops. Includes the interpretation of drawings of complex parts and mechanisms for features of fabrications, construction, and assembly. Prerequisite: DFT 114. (S)

DFT 116 Blueprint Reading: Building Trade 0 3 1

A study of the principles of interpreting blueprints and specifications common to the building trades. Includes development of proficiency in making three-view and pictorial sketches. (D)

DFT 117 Blueprint Reading and Sketching 0 3 1

A continued study of the principles of interpreting blueprints and specifications common to the building trades. Provides practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Aims for development of proficiency in making three-view and pictorial sketches. Prerequisite: DFT 116. (D)

DFT 118 Blueprint Reading and Sketching 0 3 1

A course designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings are studied with emphasis on the plot plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work. Prerequisite: DFT 107. (D)

DFT 119 Blueprint Reading: Electrical 0 3 1

A study in interpretation of schematics, diagrams, and blueprints applicable to electrical control circuits found in industrial machinery. Sketching schematic diagrams for machinery controls using appropriate symbols and notes according to the applicable code are part of this course. (W)

DFT 120 Blueprint Reading: Welding 0 3 1

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are included. Prerequisite: DFT 113. (W).

DFT 121 Pattern Development and Sketching 0 3 1

A continued study of welding symbols, methods used in layout of sheet steel, and sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 113. (S)

DFT 122 Blueprint Reading: Plumbing 1 3 2

A study of the principles of interpreting blueprints and specifications common to the piping trades. This course provides instructional material for plumbing and pipefitting students who must develop the ability to interpret trade blueprints and to plan the installation of the required plumbing. (W)

DFT 123 Blueprint Reading: Plumbing 1 3 2

A study of isometric plumbing drawings and layouts. This course includes drainage, waste, vent piping designs, and domestic water layouts. (S)

DFT 201 Technical Drafting 3 9 6

An introduction to structural drawings, topographical drawings and mapping, pipe drawings, welding representation, graphs, alignment charts, empirical equation, and graphical mathematics. Prerequisite: DFT 103. (F)

DFT 201-1 (Part-time) 2 6 4

DFT 201-2 (Part-time) 1 3 2

DFT 204 Descriptive Geometry 2 4 4

A graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed with analytical verification where applicable. Visualization is stressed on every problem. Prerequisites: DFT 102, T-MAT 102. (F)

DFT 205 Design Drafting I 2 8 5

An introduction to basic design in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Various methods of specifying materials and workmanship are an integral part of the course. Prerequisites: DFT 204, T-MAT 102, PHY 102. (W)

DFT 206 Design Drafting II 2 8 5

A research course in solving a problem in design by consulting various manuals and periodicals and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawing, assembly and subassembly drawing, pictorial drawings, exploded assembly, patent drawings, and specifications are required as a part of the problem. Prerequisites: DFT 205, MEC 210. (S).

DFT 211 Mechanisms 3 2 4

An examination of mathematical and drafting room solutions of problems involving the principles of machine elements. Includes a study of motions of linkages, velocities, and acceleration of points within a link mechanism and layout methods for designing cam, belts, pulleys, gears, and gear trains. Prerequisites: DFT 201, DFT 204, T-MAT 103, PHY 106. (W)

DFT 212 Jig and Fixture Design 2 6 4

A study of commercial standards, principles, practices, and tools of jig and fixture design. Individual projects and design work are assigned to acquaint the student with the types of jigs and fixtures and their design. Prerequisites: DFT 205, DFT 211. (D)

DFT 1207 Machine Drafting 1 5 3

An introductory course in the use of instruments, lettering, orthographic drawings, and sections and views necessary to provide proper views. Emphasis is given to dimensioning. Cam layouts, motion diagrams, and timing are surveyed. Prerequisite: DFT 115 or approval of instructor. (D)

DFT 1216 Blueprint Reading 0 3 1

A course based on industrial blueprints and standards and covering the difference between operation sheets and detailed tool drawings. Includes assembly drawings. Sketching from finished drawings to provide a better visual picture of parts is stressed. Prerequisite: DFT 1207 or approval of instructor. (D)

DRAMA

DRA 201 Introduction to Drama 2 2 3

A survey of the basic technologies of staging plays designed to acquaint students with the techniques, arts, and sciences involved in bringing a play to an audience and to make them aware of the variety of talents, skills, and abilities necessary to produce a play.(D)

ECONOMICS

ECO 108 Consumer Economics 3 0 3

A course designed to help the student use resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and in better understanding the economy in which he/she believes. (W)

ECO 201 Principles of Economics I 3 0 3

A survey of basic economics. Includes the beginning of economic life, archetype preindustrial economics, the beginning of economics as a science, economic revelation, classical economics, and modern economics theory. (D)

ECO 202 Principles of Economics II 3 0 3

A study of economic activity, monetary policy, fiscal policy, the public budget, taxation, price theory, and completion. Prerequisite: ECO 201. (W)

ECO 203 Principles of Economics III 3 0 3

The role of nonprice competition, international trade and payment, economic development, and comparative systems. Prerequisite: ECO 202. (S)

ECO 204 Industrial Relations 3 0 3

A course emphasizing the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security. Prerequisite: ECO 201. (S)

EDUCATION

EDU 101 Child Growth and Development 5 2 6

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (D)

EDU 111 Seminar and Practicum 1 4 3

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will participate in learning activities and problem-solving activities relating to children. Prerequisite: EDU 202, EDU 221 and approval of early childhood education advisor. (D)

EDU 200 Movement, Drama and Play 3 2 4

An activity course exploring the use of music and drama in recreational settings. Emphasis is on musical and dramatic activities which can be used effectively with children, adults and special groups. Practice sessions stressing the use of instruments, aids, and materials are offered. (D)

EDU 201 Introduction to Education 3 0 3

A study of education as an institution in society, its historical background, function and organization. Emphasis is placed on curriculum and instructional practices. (D)

EDU 202 Introduction to Early Childhood Education 3 0 3

A study of the recent trends in early childhood education, current education models, and educational philosophy of early childhood education. Emphasis is placed on experiences, facilities, media, and planning and implementing appropriate programs for various levels of the development of children. (D)

EDU 203 Health and Nutrition 3 0 3

A study of basic nutrition with emphasis on methods of helping young children and their families learn nutritional concepts for more healthful living. (F)

EDU 220 Language Experiences in Education 3 0 3

A course to examine the language development of children in relation to adult models and the child's early experiences. Case studies will provide opportunities to analyze problems of adult-child communication and to develop guidelines for establishing effective communication patterns with children. Exercises to develop better listening skills will be provided. Media used in reading, handwriting, spelling, and language will be examined. (D)

EDU 221 Early Childhood Methods and Materials 5 3 6

A course to enable the student to select curriculum materials and teaching techniques appropriate for early childhood education, including specific activities for the development of the child in the areas of social science, mathematics and science. (D)

EDU 230 Seminar and Practicum 0 6 3

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 112. (F)

ELECTRICAL

ELC 100 Electronic Fundamentals 3 0 3

A study of the use of AC/DC currents and circuits as they are employed in audiovisual equipment. The course will be an overview of electronics. (F)

ELC 101 Basic Electricity 2 6 4

A course in the basic understanding and application of electricity to modern industrial machinery. Includes a study of direct current motors, motor controls and protecting devices, transformers, and the industrial applications of this equipment. (F)

ELC 102 Intermediate Electricity 2 6 4

A continuation of the study of direct current control devices and then proceeding into the study of basic alternating current as related to industrial machinery. Emphasis will be given to electrical installation procedures such as connecting lighting, heating and machinery to electrical sources. Prerequisite: ELC 101. (W)

ELC 112 Alternating and Direct Current 2 6 4

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance. Includes analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. Covers fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Also includes analysis of alternating current circuits. (F/S)

ELC 113 Alternating and Direct Current Machine Controls 2 6 4

A course providing the basic concepts of AC and DC machines and simple control circuits. Includes basic meter and test equipment reading and care. Prerequisite: ELC 112. (F)

ELC 115 National Electrical Code 3 0 3

A course providing instruction and application in the use of the current National Electrical Code and how it aids those concerned with electrical safety in understanding the scope and intent of the National Electrical Code. (S)

ELC 119 Industrial Electronic Control 2 6 4

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, as related to industries. Prerequisites: ELC 112, ELC 113. (W)

ELC 121 Electrical Trouble-Shooting 2 3 3

A training course in making electrical adjustments and related maintenance operation. Includes use of test equipment and circuit logic for fast and efficient location and repair of electrical circuits. Prerequisites: ELC 112, ELC 113, ELC 119. (S)

ELC 1112 Direct and Alternating Current 4 12 8

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Also includes an analysis of direct current circuits by Ohm's Law and Kirchhoff's Law, a study of the sources of direct current voltage potentials and fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Covers analysis of alternating current circuits. (D)

ELC-A 1112 (Part-time) 2 6 4

ELC-B 1112 (Part-time) 2 6 4

ELC 1113 Alternating Current and Direct Current and Machines and Controls 4 12 8

A study providing fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Includes instruction in the use of electrical test instruments in circuit analysis, the basic concepts of AC and DC machines and simple system controls, and an introduction to the type control used in small appliances such as thermostats and timers or sequencing switches. Prerequisites: ELC 1112, MAT 1115. (D)

ELC-A 1113 (Part-time) 2 6 4

ELC-B 1113 (Part-time) 2 6 4

ELC 1121 Electrical Machines and Control 2 2 3

An introduction to the construction, operation and utilization of direct current and alternating current machines. Covers familiarization with the various types of machine control devices. Prerequisite: ELC 1112. (D)

ELC 1122 Electrical Maintenance 3 6 5

A study of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in trouble shooting and in the identification and testing of circuits, in making mechanical adjustments, and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisites: ELC 1113, ELC 1121. (D)

ELC 1124 Residential Wiring 4 12 8

A course providing instruction and application in blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, circuit breakers, wire sizes, branch circuits, conduits, and use of National Electrical Code regulations. Special permission may be obtained to receive credit for lab hours from supervised on-the-job situations. Prerequisites: ELC 1113. (D)

ELC-A 1124 (Part-time) 2 6 4

ELC-B 1124 (Part-time) 2 6 4

ELC 1125 Commercial and Industrial Wiring 4 12 8

A study in layout, planning, and installation of wiring systems in commercial and industrial situations with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Special permission may be obtained to receive credit for lab hours from supervised on-the-job situations. Prerequisite: ELC 1113. (D)

ELC-A 1125 (Part-time) 2 6 4

ELC-B 1125 (Part-time) 2 6 4

ELECTRONICS

ELN 119 Industrial Electronic Fundamentals 2 6 4

A study of basic electronic devices and systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, and other basic types and systems commonly found in industry. The concentration will be on operating characteristics and troubleshooting. Prerequisites: ELC 102 or ELC 112. (F)

ELN 124 Electronics Fundamentals 2 4 4

A course designed to develop a thorough understanding of basic electronic theory and principles and to introduce the student to the concepts, equipment, and components necessary to this understanding. Application of principles in the laboratory is an integral part of the course. Prerequisite: ELC 112. (F/W)

ELN 134 Intermediate Electronics 2 4 4

A direct continuation of ELN 124. Requires students to work with individual circuits and their application. Emphasis is placed on power supplies, amplifiers, oscillators, transmitters and receivers, transmission lines antennas, switching and gating circuits, as well as the test equipment associated with the above. Identification, design and analysis, and determination of expected outputs from specific inputs of circuits are an integral part of the course. Laboratory experiments are used to substantiate theory and develop measurement techniques. Prerequisite: ELN 124. (W/S)

ELN 224 Advanced Electronics 2 4 4

A continuation of ELN 134. Includes application of handy, rule-of-thumb approximations and simple, practical approaches to designing solid-state circuits. Students also learn how to service the solid-state and digital circuits and components in home, laboratory, and industrial systems. A significant segment of the course deals with an introduction of mircro-wave theory and measurements. Prerequisite: ELN 134. (S/SS)

ELN 234 Digital Electronics 2 4 4

A systematic introduction to the digital circuits, the concepts, and the systems that are basic in nature. The goal is to lead the student from the simplest discrete switch devices, such as semiconductor diodes and transistors to the late highspeed integrated circuits and digital instrumentation systems. Laboratory experiments are utilized to substantiate theory. Prerequisite: ELN 224. (SS)

ELN 238 Microprocessors 2 4 4

A general overview of microprocessors and minicomputers. Prerequisite: ELN 234. (S)

ELN 254 Electronic Instrumentation 2 4 4

An introductory study of electronic instrumentation for measurement and control of physical variables. Course emphasis is placed on transducers used in industrial environments. Prerequisite: ELN 134. (W)

ELN 260 Communication Electronics 2 4 4

A course to introduce the student to the basic theory of electronic circuits as used in communication. Emphasis is placed on amplitude modulation, frequency modulation, RF amplifiers, transmission lines, and antennas. Prerequisite: ELN 224. (S)

ELN 270 Consumer Electronics 2 4 4

An introductory study of troubleshooting and repair of consumer equipment such as television, radio, stereo equipment, video equipment, and electronic games. Prerequisite: ELN 224. (S)

ELN 280 Electronic Troubleshooting 2 4 4

A course designed to provide a guide to basic practical troubleshooting of electronic circuits. The student will learn to systematically analyze circuits, locate faults, and repair them effectively. Prerequisite: ELN 224. (S)

ELN 1118 Industrial Electronics Funds 2 6 4

A study of basic theory, operating characteristics, and application of diodes, triodes, tetrodes, pentodes, transistors, FETS, and integrated circuits. Includes an introduction to amplifiers and solid state theory. Prerequisite: ELC 1113. (D)

ELN 1119 Industrial Electronic Controls 2 6 4

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, amplifiers controls, welding control systems, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118. (D)

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I 2 4 3

An introduction to the field of drafting in which the student begins the study of lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection, and development. The drawing of fasteners, springs, and gears; detail and assembly drawings; and tracing and reproduction methods are studied. (W)

EGR 102 Engineering Graphics II 2 4 3

An introduction to different engineering aspects by lecture-lab and student involvement. Areas covered include precision measurement as used in the machine tool industry, electronic gaging, and surveying, including an introduction to transit, tape controlled equipment, and other topics as the need arises. (S)

ENGLISH

ENG 098 Basic Grammar I **2 3 3**

The study of basic English grammar with emphasis on terminology, identification of the parts of speech and their functions within sentences, and identification of clauses and phrases. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 099 Basic Grammar II **2 3 3**

The study of English grammar designed to aid the student in the improvement of self-expression, both written and oral. The approach is functional with emphasis on grammar, diction, sentence, punctuation, and spelling. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 101 Grammar and Composition **2 3 3**

The study of the use of the English language through the mediums of grammar and written composition. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 102 English Composition **3 0 3**

The study of the English language through the medium of written composition, with emphasis on the development of the essay and the research paper. Prerequisite: ENG 101 or ENH 101. (W/SS)

ENG 103 Introduction to Literature **3 0 3**

An introduction to three genres of literature: poetry, drama, and fiction. Course is divided into three seminars, each a study of the three genres. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 101 English Honors: Composition **3 0 3**

An interpretative study of classic and current fiction, with emphasis on the development of critical thought, composition skill, and research technique. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 102 English Honors: Composition **3 0 3**

An interpretative study of poetry, with emphasis on scholarly analysis, oral readings, and composition skills. Prerequisite: ENG 101 or EHN 101 with recommendation. (D)

ENH 103 English Honors: Literary Analysis **3 0 3**

A study of the development of drama from the time of the fifth-century Greeks to the twentieth century, with emphasis on both oral and written interpretative skills. Prerequisite: ENG 102 or ENH 102 with recommendation. (D)

ENG 104 Report Writing **3 0 3**

The study of organization and techniques of modern report writing, with emphasis on developing typical reports, using writing techniques and graphic devices. Prerequisite: ENG 102 or ENH 102. (W/S/SS)

ENG 105 Business Correspondence **3 0 3**

A study of the basic techniques in writing business communications, with emphasis on the writing of clear, forceful, and psychologically sound letters and on the composing of clear and objective memos. (F/W/S/SS)

ENG 110 Studies in Fiction **3 0 3**

The study of fiction and the major philosophical concepts and social conflicts which are presented in fiction. Prerequisite: ENG 103. (D)

ENG 201 English Literature 3 0 3

A survey of English literature from the Anglo-Saxon invasion to the Restoration Period, 449-1660. Prerequisite: ENG 103 or ENH 103. (F)

ENG 202 English Literature 3 0 3

A continuation of ENG 201 beginning with the Restoration Period, 1660, to Accession of Victoria, 1837. Prerequisite: ENG 103 or ENH 103. (W)

ENG 203 English Literature 3 0 3

A continuation of ENG 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or ENH 103. (S)

ENG 204 American Literature 3 0 3

The study of American literature from the Puritan Age to the Romantic Movement. Prerequisite: ENG 103 or ENH 103. (F)

ENG 205 American Literature 3 0 3

A continuation of ENG 204 beginning with the Romantic Movement and extending through the Rise of Realism, with major emphasis on Poe, Emerson, Thoreau, Hawthorne, Whitman, and Melville. Prerequisites: ENG 103 or ENH 103. (W)

ENG 206 American Literature 3 0 3

A continuation of ENG 204 and 205 beginning with the Realistic Movement and extending into the twentieth century, with major emphasis on Twain, Steinbeck, Faulkner, Hemingway, Dreiser, Sandberg, Frost, Lewis, Anderson, and Porter. Prerequisite: ENG 103 or ENH 103. (S)

ENG 209 Spanish Literature in Translation 3 0 3

A study of the masterpieces of Spanish literature in the drama, poetry, short story, essay, and the novel. Not to satisfy the foreign language requirement. Prerequisite: ENG 103 or ENH 103. (D)

ENG 1102 Communication Skills 3 0 3

A study of effective communication, with emphasis on language usage in speaking and writing.

FOOD SERVICE MANAGEMENT

FSO 101 Orientation to Food Service 1 0 1

An introduction to and history of food service and the outlook for the food service industry. Broad goals and specific objectives of training with an investigation of job opportunities and personal qualifications will be included.

FSO 102 Food Preparation I 3 3 4

A study of the scientific principles of food preparation and cooking procedures, including preparation of beverages, salads, stocks, soups, sauces, and gravies.

FSO 103 Equipment Layout and Design 3 0 3

A study of institutional equipment, its use and care. The course is designed to teach methods of simplifying work through the effective use and care of large and small equipment with emphasis on time and motion economy.

FSO 104 Sanitation and Safety 3 0 3

A study of sanitation standards and safety procedures as related to food storage, preparation, and service.

FSO 106 Nutrition and Menu Planning I **3 0 3**

A study of the principles of nutrition using the basic four food groups and the application of these principles to the planning of nutritionally adequate diets and other factors influencing menu planning, such as refrigeration and storage facilities, availability of seasonal foods, equipment and facilities, employee skills, eye-appealing food combinations, type of clientele, and food service.

FSO 107 Baking I **3 3 4**

An introduction to the principles and development of skills in baking.

FSO 109 Production Management **3 0 3**

A study of the use of standardized recipes and portion control, worksheets, score sheets for judging food products, plan of work to improve work methods, and further emphasis on motion economy. Prerequisite: FSO 103.

FSO 112 Food Preparation II **3 3 4**

A study of the scientific principles of food preparation and cooking procedures. Emphasis will be placed on meat analysis and cutting, meat, poultry, fish, and shellfish cookery. Prerequisite: FSO 102.

FSO 122 Food Preparation III **3 3 4**

A study of the scientific principles of food preparation and cooking procedures, with emphasis on whole meal preparation. Included will be vegetable cookery, preparation of breakfast dishes, and appetizers. Prerequisite: FSO 112.

FSO 203 Organization and Management **3 0 3**

A study of the organization structure, the application of the principles of scientific management, and the effectiveness of personnel as related to successful food service operation. Prerequisite: FSO 109.

FSO 204 Food Purchasing and Cost Control **3 0 3**

The study of fundamentals of sound food purchasing methods and procedures based on cost control, specifications, quantity, and storage. Prerequisite: FSO 103.

FSO 205 Nutrition and Menu Planning II **3 0 3**

A study of the principles of nutrition as applied to institutional menu planning including the Type A lunch, cycle menus, and modified diet planning. Prerequisite: FSO 106.

FSO 206 Financial Management **3 0 3**

A comprehensive study of financial management related to the food service operation, including food, labor, and equipment costs; operating and overhead expenses; personnel policies; and record keeping. Prerequisite: FSO 204.

FSO 207 Food Merchandising **3 0 3**

A study of food merchandising with emphasis placed on the art of food preparation and service.

FSO 210 Supervised Clinical Education **0 24 8**

A practical work experience in the student's choice of food services. The experience will be conducted under the direction of the instructor and with the cooperation of the employer.

FSO 211 Seminar **2 0 2**

A course designed for job orientation and overall evaluation of the work experience.

FSO 212 Food Preparation V **3 3 4**

A study of the scientific principles of food preparation and cooking procedures, including the planning and preparation of modified diets and Type A lunches. Prerequisite: FSO 202.

FURNITURE

FUR 102 Construction and Billing I **1 3 2**

A course emphasizing proper construction of case goods and frame stock and including the study of basic construction theory; identification of furniture construction terms; interpretation and reading of furniture working drawing; information on blueprint lines, dimensioning, procedure, and notes; and basic knowledge of materials. (W)

FUR 103 Construction and Billing II **1 3 2**

A continuation of FUR 102 with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Affect of construction on material, machine, and routing is discussed. Prerequisite: FUR 102 or approval of instructor. (S)

FUR 104 Characteristics of Wood **2 0 2**

The study of basic structure of woods used by the furniture industry. Emphasis is placed on the characteristics that mostly affect these woods in manufacturing—moisture, kiln drying, machineability, glueing, and handling. Attention is given to veneers, particle board, and hardboard. Field trips to production plants are included. (F)

FUR 106 Abrasive Materials and Glues **2 2 3**

A study of the types and materials in adhesives and abrasives currently used by the furniture industry. The course deals with applications, procedures, and equipment. Emphasis is given to defects and corrective measures for both categories. (S)

FUR 107 Finishing Methods and Materials **2 2 3**

A study of the finishing methods and materials now used by the furniture industry—process of color, filling of pores, sealing, glazing, body coats, and rubbing. Emphasis is placed on various methods of drying. Covers advantages and disadvantages of material handling, equipment needs, spray guns, conveyors, and rubbing. (SS)

FUR 108 Production Equipment I **4 0 4**

A course dealing with operating procedure, capacities, and safety of woodworking equipment used in the rough machine. Includes laminating, finish machine areas, cutting tools, operational responsibilities, and field trips to production plants. (F)

FUR 109 Production Equipment II 4 0 4

A continuation of FUR 108 dealing with preassemble sanding and cabinet assembly equipment. Covers special equipment for chair manufacturing, carving, and multipurpose equipment. Includes attention to material handling and department layout and field trips to production plants. Prerequisite: FUR 108. (W)

FUR 112 Routing, Scheduling, and Process 2 2 3

A comprehensive study of materials and methods of furniture manufacturing. Includes the flow of material through various departments and equipment as now used by industry; the study of main and alternate processes and their relation to cost, labor, waste, and time; the use of charts and the study of material properties and their relation to the work cycle. Prerequisites: FUR 104, FUR 102, FUR 108 or approval of instructor. (W)

FUR 201 Practicum 0 9 3

A course consisting of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. Enables the student to perform a planned variety of activities required for his/her specialty. The work periods are carefully planned and closely supervised by the employer and in the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer identifies the sequence of activities to be performed by the student and defines the supervisory responsibilities for the educational element of the work. Prerequisite: student registered in a two-year occupational program in the institution. (D)

GEOGRAPHY

GEO 201 Physical Geography 3 2 4

A course in physical science that emphasizes world and water formations, weather, soils, vegetation, map reading, and the relation of human activity to the physical environment. Lab reports provide practical experience in dealing with above concepts. (D)

GEO 202 Regional Geography 3 0 3

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. (D)

HEALTH

HEA 100 Cardiopulmonary Resuscitation and Multimedia First Aid 0 2 1

A course designed to train in cardiopulmonary resuscitation and multimedia first aid procedures. Students completing both components of the course are certified by the American Red Cross. (D)

HEA 110 Gerontology I: The Aging Process 3 0 3

A course designed to provide health-related personnel and others who work with the older person in institutional, home, or community settings with a basic understanding of the physical, emotional, and social changes which the older adult must face in later life.

HEA 200 Allied Health Management Procedures **3 0 3**

A course designed for students in health care fields who have had no experience in management. Includes interpersonal relationships, communications, personnel management, and work organization. Motivation and the practical aspects of organizational planning are discussed along with problem solving techniques and the ethical aspects of management. (SS)

HEAVY TRUCK MECHANICS

HTM 1101 Truck Mechanics I **4 12 8**

A study of the power plants of heavy trucks which includes diagnostic procedures on Cummings, Detroit diesel catepillar, and other major engine brands. Engine systems studies will include fuel, cooling, lubrication, and other major components. Emphasis will be given to preventative maintenance operations on those systems. Students will learn to repair engines in the truck and how to remove, repair, and re-install these engines. (F)

HTM-A 1101 (Part-time) **2 6 4**

HTM-B 1101 (Part-time) **2 6 4**

HTM 1102 Truck Mechanics II **4 12 8**

A study of the power train of heavy trucks. Students will learn to remove, repair, and install clutches, pressure plates, clutch release bearing, transmissions (both twin and triple countershaft), differentials, and other components of heavy truck power trains. Emphasis will be given to in-truck diagnosis as well as working bench repair procedures. Prerequisite: HTM 1101.

HTM-A 1102 (Part-time) **2 6 4**

HTM-B 1102 (Part-time) **2 6 4**

HTM 1103 Truck Mechanics III **4 12 8**

A study of chasis and suspension systems of heavy trucks. Students will learn to service and repair such components as tires and wheels, steering sector boxes, king pins, bushings, brakes, springs, and other components that comprise the suspension system and chassis components not covered in HTM 1101 and HTM 1102. Emphasis will be given to preventative maintenance as well as diagnosis and repair procedures. Prerequisite: HTM 1102.

HTM-A 1103 (Part-time) **2 6 4**

HTM-B 1103 (Part-time) **2 6 4**

HTM 1104 Truck Mechanics IV **4 12 8**

A study of the electrical and hydraulic systems of heavy trucks. The electrical components will include diagnosis and repair of alternators, starter motors, D.C. generators, regulators, and electrical circuits that make up the electrical systems of heavy trucks. Emphasis will be given to maintenance, diagnosis, and repair of these systems. Prerequisite: HTM 1103.

HTM-A 1104 (Part-time) **2 6 4**

HTM-B 1104 (Part-time) **2 6 4**

HTM 1105 Truck Mechanics V **3 9 6**

A course to emphasize the use of servicing procedures learned in other courses. The main component of this course will be taking tractors in for service and repair. The instructor will attempt to simulate a typical service shop in which a student might find employment. The instructor will have the final authority in deciding which jobs will be taken in as he follows established college procedures. Students will be assigned repair jobs by the instructor. Instructor authorization is required before registering for this course unless HTM 1101, 1102, and 1103 have been completed. Prerequisite: HTM 1104.

HTM-A 1105 (Part-time) **1 3 2**

HTM-B 1105 (Part-time) **1 3 2**

HTM-C 1105 (Part-time) **1 3 2**

HISTORY

HIS 101 Western Civilization **3 0 3**

A survey of the ancient near East, the classical civilizations of Greece and Rome, and the new religious civilizations of the Middle Ages. (F/SS)

HIS 102 Western Civilization **3 0 3**

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial Revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. (W/SS)

HIS 103 Western Civilization **3 0 3**

A survey of the Industrial Revolution, the European political revolts of 1830 and 1848, the political unification of Germany and Italy, World War I and its aftermath, the rise of European totalitarian states, the upsurge of nationalism in Africa and the Orient, World War II, and the Cold War Communist-Free World competitive coexistence. (S/SS)

HIS 201 American History **3 0 3**

The study of the origins and development of the United States through the presidential election of 1840. (F)

HIS 202 American History **3 0 3**

The study of the history of the United States covering the sectional conflict, the Civil War Reconstruction, and the Black experience in American through the 1960's.(W)

HIS 203 American History **3 0 3**

The study of the history of the United States in the twentieth century. (S)

HIS 206 North Carolina History **3 0 3**

A survey of events and developments occurring in the history of the state. Includes European background and early settlers; the Colonial, Antebellum, and Reconstruction periods; and the Modern period. (D)

HIS 207 American Ethnic **3 0 3**

A course surveying American history from the perspective of ethnic minority groups including Afro-Americans, American Indians, Oriental-Americans, and Spanish-Americans. It seeks to aid students in understanding the multi-ethnic composition of this nation of immigrants and to increase acceptance of different peoples. (D)

HUMAN DEVELOPMENT

HDEV 101 Human Development 1 2 2

A course designed to give the student an orientation to college and to provide clarification and direction in self-esteem and interpersonal relationships, academic skills, and career goals. (F/W/S/SS)

HDEV 102 Human Potential Seminar 0 2 1

A structured group process with emphasis on positive and constructive feedback and self-awareness. (F)

HDEV 103 Career Decision Making 1 0 1

A course designed to aid the student in making a career-oriented assessment of abilities, personality needs, interests, and values, with additional emphasis on current manpower trends. (F)

HUMANITIES

HUM 101 Personal and Cultural Appreciation I 4 0 4

A systematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods, with an emphasis on developing a greater appreciation and understanding of people and their culture. Prerequisite: ENG 103 or ENH 103. (D)

HUM 102 Humanities in the Twentieth Century 4 0 4

A critical study of specific selections from modern literature, art, and philosophy and their relevance to American life in the rapidly changing technological and nuclear age. Prerequisite: ENG 103 or ENH 103. (D)

HUM 201 American Women's Studies 3 0 3

A study of the history, literature, and social roles of women from colonial America to the present. (D)

INDEPENDENT STUDY

Subject Area 198 Independent Study **1-6 credit hours**

A course providing an opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and the instructor. An independent study request form, accompanied by a plan of study, is submitted to the department chairperson for approval. If the request is approved, the registrar signs the request form and the student registers for the course. Credit earned generally meets elective requirements of a degree or diploma. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

INDUSTRIAL MAINTENANCE

IMT 101 Basic Materials Handling 2 6 4

A course providing the student with practical experiences in the handling of materials found in industry with a forklift. The student learns to rig materials, stock materials, and move materials in a safe, efficient manner with a forklift.

Use of a forklift to remove and replace large heavy machine parts is practical. Basic materials handling safety is stressed throughout the course. Forklift repairs and preventative maintenance are part of this course. Prerequisite: ISC 102. (S)

IMT 201 Maintenance Applications I **2 6 4**

A general introductory hands on course in how to logically troubleshoot, adjust and repair industrial machinery. Various component failures are simulated on industrial machinery by the instructor. The student studies the failure symptoms, finds and corrects the problem using basic skills from math, electricity and blueprint reading. Actual repairs encompass using practical skills learned in welding, machine shop, and hydraulics. Preventative maintenance areas such as electrical/mechanical adjusting, maintenance records keeping, and lubrication are stressed. Prerequisites: ELC 102, MEC 102, and WLD 120. (F)

IMT 202 Maintenance Applications II **2 6 4**

A more advanced hands on course in how to logically troubleshoot, adjust, and repair general industrial machinery. Emphasis is placed on troubleshooting electrical control circuits, motors, mechanical drives, and fluid power circuits. Electrical test instruments such as the volt ohm meter, oscilloscope, and Ammeter are used to find electrical opens, shorts, and grounds. Micrometers and vernier calipers are used to check close fitting mechanical devices. Actual industrial machinery is used when available for students to troubleshoot, adjust, and repair. However, the instructor may simulate problems in some situations to enable the student to get the desired training experiences. Practice in running conduit, mounting circuit breakers, and pulling wire for new and existing machinery is emphasized. Electrical and fluid power preventative maintenance is stressed. Prerequisites: WLD 121, IMT 201. (W)

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety **3 0 3**

An examination of problems of accidents and fire in industry. Covers management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, OSHA regulations, insurance bureau, and how to promote safety programs. (F/S)

ISC 103 Production Control **1 3 2**

A study of day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, and expediting. Case histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of instructor. (SS)

ISC 201 Industrial Organization and Management **3 0 3**

A study of organizational structure for industrial management. Covers operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, and selection and layout of physical facilities. Also includes selection, training, and supervision of personnel as found in typical industrial organizations. (F)

ISC 202 Quality Control **3 0 3**

An examination of principles and techniques of quality control and cost saving. Includes organization and procedure for efficient quality control functions, responsibilities, structure, costs, reports, records, personnel, vendor-customer relationships, sampling inspections, process control, and tests for significance. (W/S)

ISC 203 Motion Study **2 2 3**

An examination of types of methods studies and their applications. Includes process charts, analysis sheets, time study, work simplification, and skill and effort rating. (W)

ISC 204 Value Analysis **3 0 3**

An introduction to the modern concept in the control of manufacturing production, providing the student an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary costs by the use of sound decisions through a common sense approach. (S)

ISC 205 Maintenance Management **3 0 3**

An examination of administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities are covered. (SS)

ISC 207 Foremanship Supervision **3 0 3**

A study of the foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. Includes basic functions of an organization and supervisory responsibility in carrying out the objectives in accordance with the organization's plan. Includes such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations. Prerequisite: BUS 272 or consent of instuctor. (D)

ISC 209 Plant Layout **3 2 4**

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Covers layouts for small and medium-sized plants, layout fundamentals, and selection of production equipment and materials handling equipment. Includes effective management of men, money, and materials in a manufacturing operation. Prerequisite: DFT 102. (D)

ISC 1101 Industrial Safety **3 0 3**

A study of the development of industrial safety. Includes accident occurrence and prevention, analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and protection, safety codes, and accident statistics. (F)

ISC 1103 Production Control 1 3 2

A study of production planning, dispatching, progress reporting, and adjusting and replanning systems and charts which help effectively to control production. Material wastes controls, labor controls, indirect labor controls, and overhead controls as they relate to production control are included. (D)

ISC 1110 Time Study and Time Standards 2 2 3

A course with the primary emphasis on use of the stop watch. Includes breaking down repetitive operation into elements, timing the elements, Wilk readings, operator performance rating, avoidable delays, allowances for unavoidable delays, setting time standards, timing delays, technique of work sampling, bench marks for "normal work pace," motion study such as is needed to intelligently use predetermined time standards, and practice in building up standard time for specific operations using tables of predetermined times for the elements of the operations. (D)

ISC 1113 Quality Control 3 0 3

A study in setting quality standards for customer acceptance. Includes final inspection to police these standards; prior inspections and specifications to achieve final quality standard at minumum cost; dimensions, tolerances, gages, and other techniques to control dimensions; and qualities other than dimensions which are more intangible. Covers how to set standards of police performance in such areas and receiving inspection, in-process inspection, and sampling. (D)

ISC 1121 Cost Records and Cost Estimates 3 0 3

A study of estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: approval of instructor. (D)

ISC 1123 Work Measurement 3 2 4

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. Includes the use of predetermined time schedules and the use of the stop watch as they apply to task performance of the operator in the work performance. Also covers the study of flow diagrams and methods of evaluation for production purposes. Prerequisite: approval of instructor. (D)

ISC 1125 Supervisory Responsibility 3 0 3

A course dealing with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communications. (D)

LEGAL TECHNOLOGY

LEG 101 Introduction to Paralegalism 3 0 3

An outline of the curriculum and objectives of the paralegal program, legal vocabulary, task descriptions of various paralegal jobs, professional ethics, certification and accreditation in the profession, and professional organizations. The course requires one hour per week spent in observing court. (F)

LEG 105 Legal Terminology and Vocabulary **3 0 3**

An intensive course of study in legal terminology and vocabulary, including definitions, usage, derivations, and spelling. (D)

LEG 113 Family Law I **3 2 4**

A course to train paralegals to assist in the competent handling of separations, divorces, annulments, and adoptions from initial interview through data collection and drafting instruments, giving notice, filing and serving documents, and setting hearing dates. (F)

LEG 114 Family Law II **3 2 4**

A course to train paralegals in substantive law relating to separations, divorces, annulments, adoptions, and bastardy proceedings, with emphasis on child custody, alimony, and division of marital property. Trials concerning these topics will be discussed from initial pleadings to final dispositions of the case and the substantive law will be applied in the laboratory portion of the course. Prerequisite: LEG 113. (W)

LEG 116 Contract Law **4 0 4**

A study of the role of contracts in law; essential elements of contract; interpretation, construction, and legal operation; statute of frauds; third party beneficiaries; enforcement, discharge, and breach of contracts; forms of contracts; options, purchase agreements, agreement of separation, partnerships, landlord and tenant, agency, and others. (W)

LEG 117 Torts **4 0 4**

The study of the area of law dealing with injury to people. This survey course will explore the law of intentional torts, negligence, and strict liability. The elements required for each claim for relief will be emphasized along with the available defenses.

LEG 132 Legal Research **3 6 6**

A study of the principles of legal research; case law and statutory law; codes and legislative intent; sources of law in research; primary authority and secondary authority; the subject or text approach; dictionaries, textbooks, treatises, law reviews, encyclopedias, indexes, words and phrases, and digests; the West Topic and Key Number System; the statutory approach to law; case approach to law; citations, uniform system, shepardizing; preparation of memoranda and other exercises in legal writing; and the paralegal's role in legal research. (S)

LEG 135 Legal Systems and Litigation Preparation **5 0 5**

A study of jurisdiction of state and federal courts; acquisition of jurisdiction over parties and subject matter; venue; pleadings under the North Carolina and Federal Civil Rules of Procedure, including real party in interest; splitting actions; joinder of parties and causes of action; special joinder devices; forms of pleadings and motions. The course will also include preparation of pleading, answers, cross-actions and counter-claims; use of discovery and pre-trial motions; preparation of a settlement brochure for a personal injury case; selecting jury instructions and voir dire; trial strategy and preparation. Students will work through an actual case, including mock trial and all necessary paperwork. (F)

LEG 140 Bankruptcy and Collection **4 0 4**

An introduction to the Federal Bankruptcy Act and the procedures and documents required of persons involved in bankruptcy and wage-earner proceedings. The processes used by attorneys for the collection of debt will also be covered. (W)

LEG 214 Property I **3 0 3**

A study of ownership interests in land including property generally; right of disposition; right of exclusion; right of user; classes of property; significance of distinctions between real and personal property; land transfers, in whole or in part absolute and conditional, present and future; of retained powers of ownership; of the documents and procedures necessary to establish interests in land; estates and interests in real property including estates generally, inheritable estates, freehold estates not inheritable, estates of less than freehold, and concurrent ownership. (F)

LEG 215 Property II **3 0 3**

The study of modes of acquistion and transfer of title or interest in real property including the preparation of simple contracts for sale of real estate; the deed; covenants for title in deeds; leases; mortgages and deeds of trust; adverse possession; rights in the lands of others, including easements and profits; rights of enjoyment and duties incident to ownership of real property; priorities involving recordation; private and public restrictions on the use of lands; and eminent domain and liens on real property. Prerequisite: LEG 214. (W)

LEG 216 Property III **3 0 3**

The study of the examination of titles to real property in North Carolina; title examinations generally; chain of title; examination of the sources of title; objections to title; report of title and title insurance; preparation of settlement sheets and affidavits of title; and the study and function of various documents, indices, and files on public records in various county offices. Forms for abstracting title information from public records and summaries thereof and various typical problems and errors which render a title unmarketable are included. Prerequisite: LEG 215. (S)

LEG 218 Civil Procedures and Discovery **4 0 4**

A study of the court system as affecting civil cases in North Carolina and including the preparation of pleadings, motions and orders, discovery materials, and post-judgement remedies, with an emphasis on appeals and appellate procedure. (W)

LEG 225 Law Office Management **3 0 3**

The study of types of law practice; setting up and maintaining systems within the office, including tickler, timekeeping, client file, and bookkeeping systems; maintaining ethical standards and professional responsibility; selecting and supervising secretarial personnel, and billing and upgrading practices. Lab experiences include setting up a tickler reminder system; surveying the distribution of types of law practice in this area and equipment in typical law offices; drafting a resume; and preparing a major project on time-flow, case progress, and statutes of limitations. (W)

LEG 227 Estate Management I 3 0 3

A course in interview techniques and gathering data for preparation of wills and estate plans. Basic estate and trust principles will be included. Preparation of inventories, accounts, tax returns, and other documents for administration of estates and procedures for administration of estates for deceased persons, minors, and incompetents will be included. (W)

LEG 228 Estate Management II 3 0 3

A continuation of Estate Management I, with emphasis on preparation of federal and state inheritance, estate, and gift tax forms. Prerequisite: LEG 227. (S)

LEG 250 Clinical Practice 1 12 5

A course providing students with an opportunity to gain, under staff supervision, practical on-the-job experience in the paralegal field as an integral part of their formal education. Periodic conferences between the student, instructor, and employer and periodic seminars with others enrolled in clinical practice provide opportunities to assess the learning achieved by the student in the work experience. Prerequisite: At least four quarters in the paralegal curriculum. (S)

LIBRARY—MEDIA*

EDM 101 Introduction to Libraries and Information Centers 3 0 3

The general background and philosophy of information service, including a brief general background and philosophy of information centers and their recent developments. Includes an introduction to classification systems and organization of materials, functions and use of information centers, terminology, and a study of the duties and qualifications of the personnel who staff these centers. (F)

EDM 102 Library Processes I 3 0 3

A study of policies and practices of acquisition of various kinds of materials, information relative to their sources, and the techniques of ordering. Includes borrowing films and film rentals, interlibrary loan materials, micro-film, etc. (W)

EDM 103 Library-Media Resources 3 0 3

A study of general and special reference works, catalogs, and other basic sources of information. Also includes practice in preparation of bibliographies and emphasizing correct form of all kinds of media. (S)

EDM 104 Audiovisual Equipment 3 0 3

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment and the communication characteristics of the various non-print media. (S/D)

EDM 105 Audiovisual Equipment and Production 3 2 5

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment, the communication characteristics of the various non-print media, and the utilization of AV services in a learning resource center. (W/S)

EDM 201 Library Processess II **3 2 4**

A study of routine aspects of simple cataloging. Includes a study of the organization of media collections, bibliographic searching for cataloging information, practice in descriptive cataloging, production and filing of catalog cards, and physical preparation of materials for use. Prerequisite: BUS 102. (F)

EDM 202 Library-Media Procedures **3 2 4**

A study of the principles of various circulation systems and their attendant procedures. Includes supervised performance of routines that are common to information centers, such as scheduling, recordkeeping, inventory, shelving, filing, processing and mending materials, and handling equipment. (W)

EDM 203 Practicum **2 6 4**

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional librarian or media specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisites: EDM 101, EDM 102, EDM 103, EDM 201, EDM 104. (F/W/S/SS)

EDM 204 Practicum **2 6 4**

A continuation of EDM 203 with six hours per week of practice work in an approved location and two hours a week in group discussions of work oriented problems and personal development. Prerequisite: EDM 203. (F/W/S/SS)

EDM 206 A Survey of Children's Literature **3 0 3**

A study of children's reading interests, significant authors and illustrators, indexes to children's literature, and bibliographies and aids in the selection of children's books. Covers reading in books for children through the intermediate level. (D)

*NOTE: Library-media courses are offered in alternate years.

MACHINE SHOP

MEC 101 Machine Processes **1 5 3**

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting to become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. (F)

MEC 102 Machine Processes **1 5 3**

A study of advanced operations on lathe, drilling, boring, and reaming machines. Includes milling machine theory and practice. Provides a thorough study of the types of milling machines, cutters, jig, and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: MEC 101. (W)

MEC 103 Machine Processes **1 5 3**

A study of modern machine tools of industry, including theory and practice with shaper, slotter, planner, turrent lathe, screw machine, and grinding and finishing machines. Also covers gear design and the processes of gear manufacturing. Prerequisite: MEC 102. (F)

MEC 114 Shop Practice 1 6 3

A shop practice course designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy are emphasized. Slip and press fits are produced to include bearing assembly, (W)

MEC 122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost savings, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes in producing an item. Prerequisite: MEC 102.

MEC 201 Machine Processes 1 6 3

A study of newer concepts of work handling and the automatic machining process. Includes chipless production and new techniques in metal forming. Also includes analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, numerical controls, and simplified building block numerical control systems. Prerequisite: MEC 103. (F/D)

MEC 205 Strength of Materials 3 2 4

A study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welding joints, beams, columns, and machine components. Prerequisites: PHY 106, T-MAT 103. (F)

MEC 207 Tool Making 3 3 4

A course surveying the actual construction of molds with topics of tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold cooling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: PLA 107. (W/S)

MEC 210 Physical Metallugy 3 3 4

An introductory course in metallurgy covering a basic study of the properties of metals and alloys. Includes analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also covers solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisite: PHY 101. (F)

MEC 211 Physical Metallurgy 3 3 4

A study of the properties of metals and alloys, the reaction of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, and heat treatment of steel. Includes laboratory experiments and demonstrations. Prerequisite: MEC 210. (W)

MEC 212 Practical Automation 3 2 4

A comprehensive study of automation as it is interpreted and practiced by American industry today. Covers the fundamentals of automation and its effects in industrial productivity, labor supply and demand, equipment, and processes. Students solve problems encountered while installing an automated system. (D)

MEC 213 Production Planning **3 3 4**

A study in day-to-day plant direction. Includes forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom and courses of corrective action are developed. Also includes drafting room layouts for planning and control. Prerequisites: DFT 102, MEC 201. (D)

MEC 214 Tool Engineering **3 3 3**

An introduction to the problems of tool engineering with emphasis on planning the processes of production, designing, and developing the necessary tools and utilizing available manufacturing facilities. Includes practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds, and gauges as they are utilized in modern day manufacturing and production. Prerequisites: DFT 102, MEC 201. (D)

MEC 217 Engineering Material and Processing and Testing **3 3 4**

An introductory study of the common materials used in engineering, such as woods, metals, concrete, plastics, etc., and the related physical testing to determine their properties and strengths. Emphasis is placed upon problem solving and engineering application. Prerequisite: PLA 106 or approval of instructor. (D)

MEC 235 Hydraulics and Pneumatics **3 3 4**

An examination of the basic theories of hydraulic and pneumatic systems with a look at combinations of systems in various circuits. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. (S)

MEC 236 Intermediate Hydraulics and Pneumatics **2 6 4**

A continuation of procedures covered in MEC 235 with emphasis being given to troubleshooting procedures and building hydraulic circuits using actuators, motors, servos, pumps, etc. Pneumatic circuits will also be designed, constructed and operated. Prerequisite: MEC 235. (SS)

MEC 237 Control Systems **3 3 4**

A study of hydraulic, pneumatic, mechanical, electrical, and electronic control systems and components. Covers basic description, analysis, and explanation of operation. Also includes typical performance characteristics, limitations on performance, accuracy, applications, and their utilization in industrial processes. Prerequisites: PHY 102, ELC 101. (F)

MEC 265 Bearings and Fasteners **2 6 4**

A course designed to acquaint the student with various bearings and fasteners found on industrial machinery. Bearing materials, bearing types, bearing selection, and lubrication are studied. Proper removal and replacement of bearings are practiced. Preventative maintenance records showing bearing failures, replacements, and lubrication are emphasized during the course. Identification, selection, and replacements of various fasteners such as nuts, bolts, machine screws, taper pins, pipe threads, rivets, keyways, and lag screws are studied. Prerequisite: MEC 102. (S)

MEC 298 Mechanical Problem Solving **2 3 3**

A basic study related to special problems encountered in the mechanical area. Mechanical advantages, motors, controls, and types of movements are investigated. General mechanical operations and maintenance as well as production line problems are surveyed. Prerequisite: MEC 102 or approval of instructor. (W)

MEC 299 General Maintenance and Repair **2 3 3**

A course to acquaint the student with the basic fundamentals of installation, maintenance, and repair of machine tools. Emphasis is on machine maintenance and accuracy. Miscellaneous hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling, and fastening, are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center distances are stressed for prestart inspection. Prerequisite: MEC 102 or approval of instructor. (S)

MEC 1101 Machine Shop Theory and Practice **4 12 8**

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments; elementary layout procedures; and processes of lathe, drill press, and grinding (off-hand) and milling machines. Includes both theory and practice. (F)

MEC-A 1101 (Part-time) **2 6 4**

MEC-B 1101 (Part-time) **2 6 4**

MEC 1102 Machine Shop Theory and Practice **4 12 8**

A course in advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student is introduced to the basic operations on the cylindrical grinder and selects projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101. (W)

MEC-A 1102 (Part-time) **2 6 4**

MEC-B 1102 (Part-time) **2 6 4**

MEC 1103 Machine Shop Theory and Practice **4 12 8**

A course providing advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. Includes an introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worn gears and wheels. The trainee uses precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises are given on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102. (S)

MEC-A 1103 (Part-time) **2 6 4**

MEC-B 1103 (Part-time) **2 6 4**

MEC 1104 Machine Shop Theory and Practice **3 12 7**

A course providing for the development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection. Includes additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Covers special procedures and operations, processes and equipment, observing safety procedures, and establishing good work habits and attitudes acceptable in the industry. Prerequisite: MEC 1103. (S)

MEC-A 1104 (Part-time) 2 6 4

MEC-B 1104 (Part-time) 1 6 3

MEC 1112 Machine Shop Processes 0 6 2

A study to acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Provides experiences in the basic fundamentals of drill press and lathe operation, hand grinding of drill bits and lathe tools, and set-up work applied to the trade. (D)

MEC 1113 Shop Processes 2 3 3

A study of practices used in metalworking shops. Includes introduction to how materials can be utilized and to the processes of shaping, forming, and fabrication of metals. Includes a demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planners, saws, broachers, gear cutting machines, finishing machines, and a study of the capabilities of these machines. (D)

MEC 1114 Shop Processes 2 3 3

A comparison of the unit production and mass production systems. Casting, forging and allied processes, and welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113. (D)

MEC 1115 Treatment of Ferrous Metals 2 3 3

An investigation of the properties of ferrous metals and tests to determine their uses. Includes some chemical metallurgy to provide a background for the understanding of the physical changes and their causes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron are topics for study. (S)

MEC 1116 Treatment of Nonferrous Metals 2 3 3

An investigation of the properties of nonferrous metals and tests to determine their uses. Primary interest is in aluminum, magnesium, zinc, lead, and chromium. Nonferrous alloys such as brass, bronze, bobbit, and cemented carbides are studied. A discussion of stainless steel is included. Prerequisite: MEC 1115. (SS)

MEC 1117 Basic Metals Identification 1 2 2

An elementary and practical approach to metals and their identification, classification, and basic structure with major emphasis on ferrous metals. Testing and identification tests utilize several methods including hardness, impact, tensile, color, spark, machining, and magnetic. (F)

MEC 1118 Advanced Machine Processes 3 12 7

An advanced study of the operations of the machine shop utilizing all machines. Includes instruction on gauging practices, applications to the finished product, and various gauging procedures. Students are assigned individual projects by which they gain proficiency on the various types of machines. Prerequisite: MEC 1104. (D)

MEC-A 1118 (Part-time) 2 6 4

MEC-B 1118 (Part-time) 1 6 3

MEC 1119 Advanced Machine Processes 3 9 6

A study of the more complex machines within the shop. Offers a step-by-step study of tooling for the automatic screw machines, turret lathe, and numerical tape-controlled machine. Automatic checking and clamping systems are emphasized. Prerequisite: MEC 1118. (D)

MEC 1120 Machine Repair 1 3 2

A course offering the student a look into the machines themselves. Possible reasons for machine break-down are explored. Emphasis is placed on the proper maintenance of machinery as well as preventive maintenance. Repair and maintenance manuals for various machines are reviewed. Prerequisite: MEC 1104. (D)

MEC 1121 Machine Repair 1 3 2

A continuing study of the inner parts of machinery. Special interest is placed on commercial standards, designs, and development of necessary tools and accessories. A comparison of purchase price on manufactured items of replacement parts is studied. Prerequisite: MEC 1120. (D)

MEC 1122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes to produce an item. Prerequisite: MEC 1104. (SS)

MEC 1123 Shop Processes 2 3 3

A continuation in the study of methods of manufacturing parts. Metal machining is the main emphasis in this course. Further operations on metal cutting saws, lathes, milling machines, grinders, and introduction to gear cutting equipment are reviewed. How dimensional control and precision measurement coincide with drafting procedures is also covered. Prerequisite: MEC 1114. (SS)

MEC 1124 Shop Processes 2 3 3

A discussion of some of the newer concepts of work handling and automatic machining processes. Instructions are offered on automatic screw machines, turret lathes, and numerical controlled systems as well as chipless machining. Major emphasis is on the integration of drafting processes to the machined part and how each affects the other. Prerequisite: MEC 1123. (D)

MEC 1139 Basic Hydraulics and Pneumatics 3 3 4

A study of the basic theories and uses of hydraulic and pneumatic systems and the combination of systems. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, filtration, accumulators, and reservoirs. Students install and maintain the components. Prerequisite: PHY 1101. (D)

MEC 1147 Systems of Measurement and Measuring Tools 2 0 2

A basic study of measurement and the various systems. Covers how to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Also includes the reading of the basic electrical meters used in testing. (D)

MEC 1201 Machine Processes 3 12 7

An introduction to the tools, instruments, machines, and methods used in the tool and die shop. Basic tool and die making procedures are stressed, especially as they pertain to simple blanking or bending dies and to tooling used to locate and hold parts in production. Students work on selected projects to develop a proficiency level. Prerequisite: machine shop graduate or approval of instructor. (D)

MEC-A 1201 (Part-time) 2 6 4

MEC-B 1201 (Part-time) 1 6 3

MEC 1202 Machine Processes 3 12 7

An advanced study of the operation of individual parts as they pertain to tools, dies, or fixtures. Includes special training instructions on gauging practices, assembly, and its application of the finished product. Students are assigned individual projects to help develop their proficiency in the use of various types of machine tools. Prerequisite: MEC 1201. (D)

MEC-A 1202 (Part-time) 2 6 4

MEC-B 1202 (Part-time) 1 6 3

MEC 1203 Machine Processes 3 12 7

A continuation of MEC 1202 providing a detailed study of die sets for the punch press and molding machinery. Emphasis is given to use of strippers, knockouts, material guides, and other supportive parts. Project work includes finish grinding, honing, and lapping as necessary to the assembly of the finished tool. Students are allowed to use their own reasoning as it pertains to the finished product. Prerequisite: MEC 1202 or approval of instructor. (D)

MEC-A 1203 (Part-time) 2 6 4

MEC-B 1203 (Part-time) 1 6 3

MEC 1204 Machine Processes 3 12 7

A course including the use of die stops, ejector pins, and production feeding processes. Covers stock strip layout, selection of purchased parts for dies and molds, and survey of setup and startup procedures for tools, dies, and molds. Also includes a review of the final assembly of subparts. Prerequisite: MEC 1203 or approval of instructor. (D)

MEC-A 1204 (Part-time) 2 6 4

MEC-B 1204 (Part-time) 1 6 3

MEC 1205 Strength of Material 2 3 3

A study of the principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Includes an analysis of stresses as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. (D)

MEC 1207 Toolmaking 3 3 4

A course surveying the actual construction of molds and covering tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold coiling, ejector pins, and multicavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: MEC 1201 or approval of instructor. (D)

MEC 1210 Metallurgy 2 3 3

An introductory course in metallurgy covering the study of the properties of metals and alloys. Covers an analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also includes solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. (D)

MEC 1214 Tool Design and Planning 2 3 3

A course in planning a production area and involving isolating the areas needing tools and fixtures for production and estimating the cost for tooling the assignment. Typical tool design is employed with blueprints reflecting standard procedures. Design from the drawing board is stressed. Prerequisite: machine drawing or approval of instructor. (D)

MEC 1235 Hydraulic and Pneumatics 2 3 3

A study of the basic theories of hydraulic and pneumatic systems. Covers combinations of systems in various circuits. Also includes basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanism, plumbing, filtration, accumulators, and reservoirs. (D)

MEC 1298 Special Problems in Mechanics **Maximum Credit 6 hours**

A course designed to broaden the students' experiences in the areas of mechanics. Includes problems involving experimentation, investigation, and writing of research report involving such topics as automobiles, mechanical operations, and general maintenance and repair required for machinery. Prerequisite: all curriculum courses. (D)

MEC 1299 Special Problems 3 6 5

A study of special problems within the metals industry such as tumbling, surface finish, and other related conditions. Each student will be required to follow a complete system from design to production stage to review conditions as viewed by production. Flashing and overheating of molded material are also discussed. (D)

MEC-A 1299 (Part-time) 2 3 3

MEC-B 1299 (Part-time) 1 3 2

MATHEMATICS

MAT 090 Arithmetic 3 2 4

A course covering the basic operations of addition, subtraction, multiplication, and division as performed on whole numbers. Includes greatest common factor, least common multiple, common fractions, and decimal fractions. Also included are ratio and proportions, percentages, and formula evaluation. Completion of this course does not earn credit toward the completion of a diploma or a degree. (F/D)

MAT 091 Algebra 3 2 4

An elementary course in algebra including topics such as operations on signed numbers, exponents, operations on polynomials, special products and factoring, algebraic fractions, solving and graphing linear equations, radicals, quadratic equations, and properties of the imaginary unit. Completion of this course does not earn credit toward the completion of a diploma or a degree. Prerequisite: MAT 090 or satisfactory score on the placement test. (F/D)

T-MAT 100 Mathematics 3 0 3

A study in practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 101 College Math 3 0 3

A study of college mathematics including the study of polynomials, algebraic fractions, exponents, radicals, and an introduction to the metric system. Prerequisite: MAT 091 or a satisfactory score on the placement test. (F/W/S)

T-MAT 101 Technical Math 5 0 5

The first course in a three-course technical math sequence. Topics of study include the arithmetic of whole numbers, decimals, common fractions, percents, signed numbers, and algebraic expressions. (F)

MAT 102 College Math 3 0 3

A further study in college mathematics, this course includes algebraic equations, mathematical method, mathematical logic, properties of number systems, and an introduction to computers. Prerequisite: MAT 101. (W)

T-MAT 102 Technical Math 5 0 5

The second course in a three-course technical math sequence. Topics of study include linear equations, special products, factoring, algebraic fractions, and elementary plane geometry. Prerequisite: T-MAT 101 or equivalent. (W)

MAT 103 College Math 3 0 3

The third and final course of a sequence in college mathematics. Topics include vectors and matrices, inequalities, functions and relations, algebraic functions, and exponential and logarithmic functions. Prerequisite: MAT 102. (S)

T-MAT 103 Technical Math 5 0 5

The third course in a three-course technical math sequence. Topics include exponents, radicals, quadratic equations, and trigonometry. Prerequisite: T-MAT 102 or equivalent. (S)

MAT 110 Business Math 5 0 5

A course stressing the fundamental operations and their applications to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: MAT 090 or satisfactory score on placement test. (F/W/S)

MAT 111 Algebra **5 0 5**

An axiomatic presentation of the real number system as an ordered field in which definitions, axioms, and theorems are used to justify the traditional algebraic processes involving such topics as algebraic fractions, factoring, absolute value, equations, inequalities, radicals, and exponents. Additional topics are various types of functions, including the exponential functions, logarithmic functions, and the circular functions. Prerequisite: MAT 101 or satisfactory score on the placement test. (F)

MAT 112 Trigonometry **5 0 5**

A continuation of MAT 111 and including the study of the trigonometric functions, identities, radian measurements, trigonometric equations, complex number, theory of equations, systems of equations, binomial theorem, probability, and sequence. Prerequisite: MAT 111. (W)

MAT 113 Analytical Geometry and Calculus I **5 0 5**

A course including the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity, and an introduction to differentiation. Prerequisite: MAT 112 or equivalent. (S)

MAT 201 Analytical Geometry and Calculus II **5 0 5**

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem, and inflection. The indefinite integral and its properties are also introduced. Prerequisite: MAT 113 or equivalent. (F)

MAT 202 Analytical Geometry and Calculus III **5 0 5**

A continuation of the study of the indefinite and definite integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendental functions, integration by parts, integration by substitutions, and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV **5 0 5**

A study including multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series, and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent. (W)

MAT 214 Statistics **5 0 5**

A study of the theory of statistics and its application in modern business. Includes kinds of regularity that exist among random fluctuations and experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 101 or MAT 110, T-MAT 101. (F)

MAT 220 Differential Equations **5 0 5**

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203. (D)

MAT 1101 Fundamentals of Math **3 0 3**

A study of practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 1102 Algebra **5 0 5**

A study of basic concepts and operations of algebra. Includes historical background of base-10 number system; algebraic operations, subtraction, multiplication, and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation, graphical and algebraic solution of first degree equations; and solution of simultaneous equations by addition, subtraction, graphing, exponents, logarithms, tables, and interpolation. (W)

MAT 1104 Trigonometry **3 0 3**

A study of trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions and trigonometric equations. All topics are applied to practical problems. (S)

MAT 1110 Fundamentals of Math for Plumbers and Welders **5 0 5**

An in-depth review of the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The study of metric units as well as linear, angular, and surface measurements are included. Emphasis is placed on measuring and using measurements to solve plumbing & welding problems. (W)

MAT 1115 Electrical Math **5 0 5**

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, and ratios and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables and introduction to trigonometric functions and their applications to right angles; and a study of vectors for use in alternating current. (F)

MAT 1123 Math: Machinist **3 0 3**

An introduction to gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems. Prerequisite: MAT 1104. (SS)

MAT 1201 Trigonometry **5 0 5**

A course stressing trigonometric ratios, solving problems with right angles using tables or calculators, and interpretation of tables. Covers solving for sides or angles using the laws of sine and cosine. Includes a survey of the use of inverse functions of trigonometric equations. All topics are applied to practical problems found within a machine shop. Prerequisite: MAT 1123 or approval of instructor. (D)

MAT 1202 Uses of the Handbook **3 0 3**

A course featuring practical problems especially selected as they pertain to the manufacture of tool parts. Stresses how to read and interpret the machinery handbook to insure mastery of mathematical principles as they apply to the tool and die trade. Prerequisite: MAT 1101 or approval of instructor. (D)

MUSIC

MUS 101 Music Appreciation **3 0 3**

An historical study of music, with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces, and other significant works. (F/W/S)

MUS 102 Elementary Theory of Music I **3 0 3**

A study of basic fundamentals of music, with emphasis on ear-training, sightsinging, and keyboard harmony. The study of harmony includes note reading and notation, major scales with related and parallel minors, major and minor triads and dominant sevenths, key signatures, intervals, enharmonics, compositional devices, and rhythmic textures. (D)

MUS 103 Elementary Theory of Music II **3 0 3**

A continuation of the study of music fundamentals, with emphasis on figured bass, diminished and augmented chords, chord inversions, four-part harmonic progressions, cadences, secondary dominants, transposition, modulation, improvisation, pentatonic and whole tone scales, medieval modes, phrase structure, nonharmonic tones, pivot chords, sequences, chromatic chords. Neopolitan sixth, and chords, of the ninth, eleventh, and thirteenth. Prerequisite: MUS 102. (D)

MUS 104 Elementary Theory of Music III **3 0 3**

An advanced study of music theory, with emphasis on sight-singing; rhythmic, melodic, and harmonic dictation; and keyboard harmony. This course is a more in-depth study of elements introduced in MUS 102 and MUS 103. Prerequisites: MUS 102, MUS 103. (D)

MUS 105 Chorus **0 2 1**

A group singing class, with emphasis on classical, semi-classical, and popular contemporary songs. (F/W/S)

MUS 106 Voice **0 2 1**

A study of the principles of voice production and extensive singing, with emphasis on both group singing and solo song literature. For the beginning voice student. (No knowledge of music required). (F/W/S)

MUS 107 Piano **0 2 1**

A course for students entering at any level of proficiency, with emphasis on improving playing technique. No previous experience necessary. May be used as a refresher course for those out of touch with the keyboard or as a course for those who wish to develop new skills at any level. Evaluations based on progress from one level of proficiency to another, depending on the level at which the student begins. Up to 6 credit hours may be accumulated. (F/W/S/SS)

MUS 112 Intermediate Band **0 2 1**

A small ensemble for students who have ability playing any band instrument, with emphasis on instrument mastery and performance. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play a band instrument at the intermediate level. (W)

MUS 113 Advanced Band **0 2 1**

A large ensemble for students who have an advanced ability and experience playing any band instrument, with emphasis on extending instrument mastery, playing a variety of musical styles, and learning a variety of musical interpretations. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play any band instrument at the high school level. (F/W/S/SS)

MUS 102 Guitar **0 2 1**

A study of guitar, with emphasis on developing finger dexterity, forming chords, strumming, rhythmic patterns, and tuning the guitar. Lessons are presented in logical sequential steps. The course stresses good musicianship and teaches proper playing techniques. The overall course content is concerned with theory, harmony, reading from musical notation, and rhythm. (D)

MUS 201 American Music **3 0 3**

A study of Western music as it existed and exists on the American continent from 1640 to the present, including music from all genres, Afro-American, and Indian music. (D)

MUS 202 Romantic Period **3 0 3**

A study of the music of the Romantic period, the development of program music, German and Italian opera, late Romantic music, Nationalism, Impressionism, and post-Romantic music. The course will begin with a study of the works of Beethoven and will cover the major composers such as Schubert, Chopin, Liszt, Berlioz, Strauss, Wagner, Verdi, Tchaikovsky, Brahms, Debussy, and Ravel. (D)

NUCLEAR MEDICINE TECHNOLOGY

NMT 101 Nuclear Medicine Technology I **1 0 1**

An orientation to the field of nuclear medicine technology. Elementary patient care procedures and professional ethics are emphasized. (F)

NMT 102 Nuclear Medicine Technology II **1 0 1**

An introduction to the radiopharmaceuticals and instrumentation used in nuclear medicine. Radiation safety procedures are discussed. Prerequisite: NMT 101. (W)

NMT 103 Nuclear Medicine Technology III **1 0 1**

A study of the *in-vivo* nuclear medicine procedures. Patient preparation for these procedures is emphasized. Prerequisite: NMT 102. (S)

NMT 104 Nuclear Medicine Technology IV **2 0 2**

A continuation of the nuclear medicine technology which emphasizes special *in-vitro* procedures. Prerequisite: NMT 103. (SS)

NMT 111 Principles of Nuclear Medicine I **2 0 2**

An introductory course in clinical nuclear medicine. The basic principles of the major *in-vivo* studies and major clinical nuclear medicine procedures are introduced. Prerequisite: NMT 104. (F)

NMT 116 Nuclear Physics 2 0 2

An introduction to the basic concepts of atomic and nuclear radiation physics. Nuclear decay schemes and concepts of radioactive decay are discussed, followed by a thorough discussion on the interactions of radiation with matter. Prerequisite: NMT 104. (F)

NMT 117 Health Physics 1 0 1

An introduction to radiation safety techniques for reducing radiation exposure to physicians, technologists, and patients. Atomic Energy Commission and state regulations and monitoring methods for nuclear medicine departments are emphasized. Prerequisite: NMT 111. (W)

NMT 129 Practicum I 0 12 4

A program of directed clinical learning experiences in special areas of the nuclear medicine laboratory. Radionuclide generators, radiation safety, and management and administration of nuclear medicine department are presented in lecture series. Prerequisite: NMT 103. (SS)

NMT 221 Principles of Nuclear Medicine II 2 0 2

A study of the principles and applications of radionuclide studies of the gastrointestinal and cardiopulmonary systems. Prerequisite: NMT 111. (W)

NMT 223 Radiopharmaceuticals I 2 0 2

An introduction to radiopharmacy functions, production of radionuclides, quality control and radiopharmaceuticals, and radiopharmacy mathematics. Prerequisite: NMT 111. (W)

NMT 230 Nuclear Medicine Instrumentation I 3 2 4

A study of practical design of radiation detection instruments and circuit construction. Use of such instruments as the Geiger-Muller counter, ionization chambers, proportional counters, and radiation monitoring devices are discussed. Statistics related to nuclear counting are introduced. Prerequisite: NMT 111. (W)

NMT 233 Radiopharmaceuticals II 2 0 2

A study of radiopharmaceuticals used in nuclear medicine departments on a routine basis. Radiopharmaceuticals of historical and research interest are emphasized. Prerequisite: NMT 223. (S)

NMT 240 Nuclear Medicine Instrumentation II 3 2 4

A study in detail of the use of well counter, scanners, cameras, and single channel and multichannel analyzers as related to clinical nuclear medicine. Emphasis is placed in NaI (Tl) detectors, Geli detectors, amplifiers, spectrometers, ratemeter, and scales. Prerequisite: NMT 230. (S)

NMT 241 Principles of Nuclear Medicine III 2 0 2

A detailed study of principles and applications of radionuclide studies of the endocrine and central nervous systems. Prerequisite: NMT 221. (S)

NMT 251 Principles of Nuclear Medicine IV 2 0 2

A detailed theoretical consideration of standard *in-vivo* laboratory tests and radionuclide studies of the skeletal and urinary systems. Prerequisite: NMT 240. (SS)

NMT 255 Introduction to Radioimmunoassay 1 2 2

A review of the basic units of measurement with emphasis on the metric system. The organization of living matter from the chemical view is discussed. Emphasis is placed on protein structure and competitive protein binding analysis. Prerequisite: NMT 104. (F)

NMT 256 Organic and Biochemistry 3 2 4

A basic introduction to organic and biochemistry, with particular emphasis on drawing and naming structures by IUPAC nomenclature; structural isomerism; the basic functional groups of organic compounds; specific aliphatic and aromatic compounds used in medicine; proteins, carbohydrates and fats in human metabolism. Prerequisite: CHM 101. (F)

NMT 268 Open Lab Practicum I 0 6 2

A clinical experience as conducted under evening and weekend emergency conditions. Prerequisite: NMT 104. (W)

NMT 269 Practicum II 0 24 8

A course featuring practical experience in a clinical setting with emphasis on scanning. Radiation protection practices and routine quality control of the instruments are observed and used. Prerequisite: NMT 129. (F)

NMT 273 Open Lab Practicum II 0 6 2

A clinical experience conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (S)

NMT 274 Practicum III 0 24 8

A practical experience in a clinical setting with emphasis on the more advanced applications of nuclear medicine procedures. Preparation and use of radiopharmaceuticals and preparation of the patient for such studies as bone and 67GA are included. Prerequisite: NMT 269. (W)

NMT 278 Open Lab Practicum III 0 6 2

A clincal experience conducted under evening and weekend emergency situations with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (SS)

NMT 279 Practicum IV 0 24 8

A practical experience in a clincal setting with emphasis on *in-vitro* procedures and therapeutic use of radionuclides. The course also relates all theory presented during the first three quarters of practicum. Prerequisite: NMT 274. (S)

NMT 283 Open Lab Practicum IV 0 6 2

A clinical experience in NMT 284 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278. (SS)

NMT 284 Practicum V 0 24 8

A more detailed study in the design and use of specific instruments utilized in clinical nuclear medicine. Emphasis is placed on the performance of more advanced studies in *in-vitro* and *in-vivo* procedures employing radioisotopes and practical therapeutic use of radionuclides. Prerequisite: NMT 279. (SS)

NMT 289 Radiobiology 1 0 1

A course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects of radiation are stressed. Emphasis is placed upon the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 221. (S)

NMT 290 Nuclear Medicine Technology Seminar **2 0 2**

A review of specific topics of nuclear medicine technology of special interest to students. Papers on such topics are presented by guest speakers. Prerequisite: NMT 241. (SS)

NURSING—ASSOCIATE DEGREE

NUR 101 Fundamentals of Nursing **6 9 9**

A course designed to provide a foundation for all subsequent courses in nursing. Students are provided with opportunities to learn the principles and techniques which are basic to the effective and safe nursing care in meeting the needs common to all patients. Emphasis is placed on the patient's environment, hygienic needs, communications skills, observational skills, planning nursing care, recording, medical and surgical asepsis, and supplementary nursing functions. A variety of approaches are utilized for the development of the basic techniques and skills necessary to meet the basic needs of man. (F)

NUR 102 Nutrition **3 0 3**

A practical study of nutrients, how they are used by the body, and sources and types of food necessary for the balanced diet in development, with ethnic variations. Physiological processes of digestion, absorption, and metabolism are discussed. An introduction to the most commonly used hospital diets is included. (F)

NUR 103 Pharmacology **3 0 3**

A presentation of facts concerning sources, effects, legalities, and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Emphasis is placed on the nurse's responsibility in relation to drug administration. Prepares the student for the process of administering and computing dosages of therapeutic agents. Practice opportunities are available in both classroom and clinical sessions. Prerequisite: basic math. (W)

NUR 104 Medical Surgical I **8 0 8**

A course providing beginning knowledge of the nursing care of patients with common problems caused by illness. Symptoms of illness, classification of diseases, preoperative and post operative care, longterm illness, and rehabilitation are included. Nursing needs of the patient with disorders and/or diseases of the cardiovascular, urinary tract, and endocrine systems are stressed. Principles related to the care of patients with communicable diseases, skin disorders, as well as emergency and disaster nursing are introduced. Prerequisite: NUR 101 through NUR 102. Corequisite: NUR 103, NUR 105. (W)

NUR 105 Medical-Surgical I Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units in area hospitals to develop the skills needed to demonstrate the knowledge learned in NUR 104. The emergency room, operating room, and recovery room are utilized. Prerequisite: NUR 101 through 102. Corequisite: NUR 103, NUR 104. (W)

NUR 106 Maternal-Infant Health I **4 0 4**

A course designed to provide the student with opportunities to acquire knowledge and understanding needed to render safe and effective nursing care to the maternity patient, the newborn infant, and the infant's family. Prerequisite: NUR 101 through 105. Corequisite: NUR 107. (S)

NUR 107 Maternal-Infant Health I Lab **0 6 2**

A series of objective-centered sessions using selected patients in the obstetrical units of area hospitals to develop skills needed to apply the knowledge learned in NUR 106. Experiences in selected clinics are planned to stress the scope of maternal-infant health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 106. (S)

NUR 108 Child Health Nursing I **4 0 4**

A course providing the student with opportunities to acquire the knowledge and understanding needed to render safe and effective nursing care to the child from infancy through adolescence and to his/her family. Prerequisite: NUR 101 through 105. Corequisite: NUR 109. (S)

NUR 109 Child Health Nursing I Lab **0 6 2**

A series of objective-centered sessions using selected patients in area hospitals to develop the skills needed to apply knowledge learned in NUR 108. Experiences in selected clinics are planned to stress the scope of child health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 108. (S)

NUR 110 Medical-Surgical I **6 0 6**

The study of diseases/disorders of body systems. The etiology, diagnosis, treatment, and nursing care during these conditions of illness are covered. Nursing care of patients with disorders/diseases of the reproductive, gastrointestinal, nervous, musculoskeletal, and respiratory systems are included. Priniciples related to the care of patients with long-term illness, in geriatric situations, as well as the patient with cancer and the dying patient are introduced. Patient teaching and rehabilitation are stressed as intrinsic aspects of the nursing process. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 111. (SS)

NUR 111 Medical-Surgical I Lab **0 18 6**

A series of objective-centered learning experiences using selected patients in the medical-surgical units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 110. Functioning as a member of the nursing team and the utilization of all health team members to promote and achieve total patient care are important aspects of this experience. The intensive care and cardiac care units are utilized. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 110. (SS)

NUR 112 Nursing Seminar I **3 0 3**

A study of the legal and ethical responsibilities, professional organizations, and job opportunities availiable to the licensed practical nurse. The North Carolina Nurse Practice Act is emphasized. The importance of an availability of continued education is stressed. Applications for writing the State Board of Nursing Licensing Examination for Practical Nurses are completed and submitted at the end of this course. The seminar method of instruction is utilized and opportunity made for discussion of special interests of the students. Prerequisite: NUR 101 through NUR 109. (SS)

NUR 200 Psychiatric Nursing 6 0 6

A study of the nurse's role in functioning therapeutically and in individual interpersonal relationships with the mentally ill patient who requires hospitalization at some point during the patient's illness. Emphasis is placed on cognizance and utilizaiton of self as a therapeutic agent, identification of personality, and behavior deviations. Synthesis and integration of information acquired in all other courses is expected throughout the course. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 201. (SS/W)

NUR 201 Psychiatric Nursing Lab 0 9 3

A series of objective-centered learning experiences using selected patients in psychiatric units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 200. Synthesis and integration of skills acquired in all other courses is expected. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 200. (SS/W)

NUR 202 Maternal-Infant Health II 4 0 4

A study of nursing intervention during the maternal cycle including intensive care of premature infants. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgemental, and manipulation skills, drawing from knowledge acquired through related courses, is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 203. (F/S)

NUR 203 Maternal-Infant Health II Lab 0 6 2

A series of objective-centered learning experiences using selected patients in the maternity units of area hospitals and other health agencies to develop the skills needed to demonstrate the knowledge learned in NUR 202. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 202. (F/S)

NUR 204 Child Health Nursing II 4 0 4

A study of nursing intervention during childhood from infancy through adolescence. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses, is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 205. (F/S)

NUR 205 Child Health II Lab 0 6 2

A series of objective-centered learning experiences in the pediatrics units of area hospitals and other related health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 204. Prerequisites: NUR 200 through NUR 201. Corequisite: NUR 204. (F/S)

NUR 206 Medical-Surgical III 6 0 6

A comprehensive study of biological, social, and emotional components of frequently occurring illnesses. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems are stressed. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 207. (W/SS)

NUR 207 Medical-Surgical III Lab 0 15 5

A comprehensive study of biological, social, and emotional components of frequently occuring illnesses. Orientation will be based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems are stressed. Use of medical-surgical units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 206. Opportunity is provided for using previously acquired knowledge in planning and implementing nursing care for groups or individuals. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 206. (W/SS)

NUR 208 Medical-Surgical IV 6 0 6

A comprehensive study of biological, social, and emotional components of frequently occurring illness with emphasis upon the rehabilitative and adaptive processes. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 209. (S/F)

NUR 209 Medical-Surgical IV Lab 0 18 6

A series of selected learning experiences to assist the student in the development of the ability to formulate and utilize previously and concurrently acquired skills so that comprehensive planning and competent application of cognitive, affective, and manipulative skills are employed in the care of the patient(s) in all age groups and in a variety of situations. The student is given the opportunity to plan, direct, and evaluate total patient care for groups and/or individuals using the instructors as the principle resource. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 208. (S/F)

NUR 210 Seminar II 3 0 3

A study of the role and responsibilities of the registered nurse. The leadership role and various methods of managing patient care are emphasized. Current trends, transitional concerns, employment opportunities, and continuing education are stressed. The seminar approach is utilized to meet the individual needs of the students. Prerequisites: NUR 200 through NUR 207. (S/F)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 Orientation to OTA Program and Introduction to Occupational Therapy 3 3 4

A two-week pre-quarter orientation for students entering program. Includes field visits to clinical sites providing occupational therapy services for the purpose of identifying roles of occupational therapy personnel and introduction to medical terminology and health care services. (SS/F)

OTA 102 Occupational Therapy Theory I **3 1 3**

An introduction to the art and science of occupational therapy including the history of the profession, practice arenas, and discussion of the role of the Association. Emphasis will be on identification of roles and responsibilities of the COTA, standards of practice, socio-cultural influences affecting occupational therapy, and accountability and ethics. Level I field work experiences to be incorporated into lab sessions. Discussion and field experiences will highlight relationship of occupational therapy to other health services. (F)

OTA 103 Major Crafts and Their Application **1 4 3**

A course devoted to the development of skills in major crafts including woodworking, weaving, ceramics and leatherwork. The use of and adaptation of these activities in therapeutic programs will be integrated with the learning of skills. Care and maintenance of equipment and materials will be emphasized. Prerequisites: OTA 101 and OTA 102. (F)

OTA 104 Occupational Therapy Theory II **3 2 4**

A study and analysis of daily life tasks and activities including self care, work and play/leisure skills. Concepts of activity analysis, adaptation, and role mastery will be reviewed in conjunction with normal growth and development. Individual and group instructional techniques will be stressed. Prerequisites: OTA 101, OTA 102 and PSY 210. (W)

OTA 105 Occupational Therapy Theory III **3 2 4**

A course emphasizing the occupational therapy treatment process. Basic principles of screening, program planning, and implementation of programs for clients with biopsychosocial disorders will be stressed. Programs for prevention and remediation of health disorders will be developed and analyzed from actual field experience case studies. Professional skills of information gathering, goal setting, and selecting and planning use of occupational therapy techniques will be mastered by the student. Prerequisite: OTA 104 and BIO 108. (S)

OTA 106 Occupational Therapy Media **1 4 3**

A course emphasizing the value of activities in life and in occupational therapy. Concepts of activity analysis will be introduced. Prerequisite: OTA 101. (F)

OTA 107 Medical Conditions **3 0 3**

This is a study of disabling conditions commonly encountered in occupational therapy. Included are causes, symptoms, prognosis and treatment methods of physical conditions. Prerequisite: BIO 108. (S)

OTA 201 The Mature Years—Gerontology **3 2 4**

A course focusing on the latter half of the life span, including concepts of the aging process, retirement, and physical, emotional, and social adjustment. Emphasis will be on occupational therapy programming for geriatric citizens living in various environments. Field experiences will include visiting and participating in geriatric programs. Prerequisite: OTA 105. (W)

OTA 202 Occupational Therapy IV 3 3 4

An expansion of OTA 105. The occupational therapy treatment process for clients with biopsychosocial disorders will be stressed. Occupational therapy treatment processes will be studied and reinforced with related field work. Prerequisite: OTA 105. (F)

OTA 203 Occupational Therapy Theory V 3 2 4

This course is designed to provide the student with basic information on the contribution of the OTA to program administration and support. Current issues in occupational therapy will be explored. Prerequisite: OTA 202. (W)

OTA 204 Occupational Therapy Fieldwork 0 40 13

Full-time (40 hours a week) supervised fieldwork in a prearranged clinical site. Emphasis will be on the application of academically acquired bodies of knowledge. The student will be provided with indepth experiences in and responsibility for delivery of services to clients/patients with appropriate occupational therapists, registered, supervision leading to the performance level expected of an entry-level occupational therapy assistant. (OTA 204 includes two placements in appropriate centers.) Prerequisites: All OTA courses. (S)

OTA 205 Optional Occupational Therapy Fieldwork 0 40 13

A placement designed for those students who wish to have field experiences above the minimum required in OTA 204. These may be in specialized service delivery areas or in traditional areas as used in OTA 204. Prerequisites: All OTA courses. (SS)

PHILOSOPHY

PHI 201 Introduction to Philosophy 3 0 3

A study of various alternative philosophies concerning the nature of truth, ethics, happiness, society, and religion. Emphasis is placed on the insights of the great philosophers as well as assisting the student in developing a personal philosophy of living. (F/S/S/SS)

PHOTOGRAPHY

PHO 101 Basic Photography 2 2 3

A study of fundamental photographic equipment and materials. Both still and movie camera principles are studied in relation to the field of design and visual communications. (F/W/S/SS)

PHO 201 Advanced Photography 2 2 3

A course in advanced photograhic techniques and materials. Participation in studio lighting, copying, and photography of various objects of artificial light permit a wider use of photography in visual communications. Prerequisite: PHO 101 or demonstrated skill. (D)

PHYSICAL EDUCATION

PED 101 Physical Activities for Children 2 2 3

A recreation course based on games for children beginning with the pre-school child. The student will explore activities and materials for promoting the physical development of young children. Special emphasis will be on body movements, exercise, and dance. Various instructional techniques used in music, drama, and physical education will be emphasized. (S)

PED 110 Archery **0 2 1**

A course designed to teach the student the fundamentals, skills, history, and rules, with special emphasis on safety practices, etiquette, and value which carry over into a useful leisure time activity. (F)

PED 111 Badminton **0 2 1**

A course which deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game. (W)

PED 112 Bowling **0 2 1**

A study of the fundamentals of ball selection, grips, stance, and delivery along with rules, history, and scoring. Special emphasis is placed on spot bowling. (W)

PED 113 Golf **0 2 1**

A course designed for teaching the grips, stance, and use of various clubs, along with history and etiquette of play. (F/S)

PED 114 Physical Fitness **0 2 1**

An introduction to physical activity with emphasis being placed on the cardiovascular system, strength, and efficiency in executing basic skills which may arise in play and daily living. (F/W/S/SS)

PED 115 Tennis **0 2 1**

An elementary course in the history, rules, and regulations. Emphasis is placed on the fundamentals of the game with prime consideration given to strokes and footwork. (F/S/SS)

PED 116 Beginning Skiing **0 2 1**

An elementary course for the non-skier designed to get the individual to the point of skiing proficiently. (W)

PED 117 Beginning Swimming **0 2 1**

A course designed for the non-swimmer. Includes basic strokes and water safety based upon American Red Cross programs of instruction. (S/SS)

PED 118 Aerobic Dancing **0 2 1**

A physical fitness program which offers complete body conditioning. Dance patterns with unique musical arrangements are utilized to promote toning and strengthening of muscles and cardiovascular fitness.

PED 119 Tumbling and Gymnastics **0 2 1**

A course dealing with the beginning of tumbling, stunts, and gymnastics. Special emphasis is placed on the safety of these activities and correct body balance and form. (W)

PED 120 Handball **0 2 1**

A course designed to teach the fundamental skills, rules, history, and strategy of handball with emphasis placed on practice and skill development. (D)

PED 125 Basic Backpacking and Climbing **0 2 1**

A course designed to introduce the student to the sport of backpacking and rock climbing. (D)

PED 130 Basketball **0 2 1**

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball. (W)

PED 132 Soccer **0 2 1**

A course covering the fundamental skills, history, rules, and strategy with emphasis placed on practice and execution of activity skills. (F)

PED 133 Softball **0 2 1**

The study of history, rules, skills, and strategy with emphasis on defensive play by positions. (S)

PED 134 Volleyball **0 2 1**

A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carry-over value of activity. (W)

PED 135 Canoeing **0 2 1**

A course including lectures and laboratory practices in the basic skills of lake and river canoeing. All basic strokes and fundamentals of canoe safety and rescue are emphasized. It is recommended that students be able to swim before registering for this course. (F/S/SS)

PED 140 Ice Skating **0 2 1**

A course designed to develop and improve fundamental skills and techniques in ice skating. (W)

PED 141 Horseback Riding **0 2 1**

A course designed to acquaint students with the western style of riding, equipment, handling of horses, the aids, mounting, tail riding, and care of the horse. Emphasis is placed on the development of equestrian skills, safety, coordinated horse-rider balance, and proper care of horses. (F/S/SS)

PED 142 Advanced Horseback Riding **0 2 1**

A course designed to give the novice rider a more intense experience riding horses in a variety of specialized situations and to further acquaint the student with horses' behavior, equipment, the aids, and care of the horse. Emphasis is placed on the development of skills in jumping, rodeo games, and trail riding. Prerequisite: PED 141 or demonstrated skill. (S/SS)

PED 151 Modern Dance **0 2 1**

A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education. (W)

PED 152 Folk and Square Dance **0 2 1**

A course in the development and successful performance of dance skills in regional American folk dances. (W)

PED 154 Beginning Social Dance **0 2 1**

A course designed to provide students with the basic fundamentals of popular dancing. Provides the students with information which will help them enhance their social life and give them an appreciation for dancing. (F/W/S/SS)

PED 155 Advanced Social Dance **0 2 1**

A course designed to provide students with advanced fundamentals of popular dancing. All instruction is directed toward students' abilities to perform the movements with expertise. Stress is put on rhythm, appearance, and routine sequence. Prerequisite: PED 154 or approval of instructor. (F/W/S/SS)

PED 160 Individual Activity **0 2 1**

A course providing specialized activities approved by the physical education and recreation department for a particular student. (D)

PED 180 Personal and Community Health **3 0 3**

A course designed to develop an awareness of the personal, community, and worldwide importance of health. Special emphasis is placed on the physical, mental, and emotional aspects of the human body. Health problems, their causes and prevention are also stressed. This course may not be used as a substitute for required P. E. activity courses. (D)

PED 185 First Aid and Safety **3 0 3**

A course presenting the skills, techniques, and knowledge needed to have a safe environment. Adequate class time is reserved for practical demonstrations of first aid safety. Students are provided the opportunity to obtain the standard first aid certificate. This course may not be used as a substitute for required P. E. activity courses. (W)

PED 200 Intermediate Tennis **0 2 1**

A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance, and tennis strategy. Prerequisite: student must have passed beginning tennis (PED 115) with a grade of "C" or better or have the approval of the instructor.

PED 201 Introduction to Physical Education **3 0 3**

An introductory course to acquaint the student with the principles and philosophy of physical education. Special emphasis is placed on the sociological, physiological, and psychological objectives of physical education and the professional preparation essential to become a physical educator. (F)

PED 212 Kinesiology **3 2 4**

A course presenting the basic concepts of the study of human movement with an emphasis on normal voluntary movement. It includes specialized study of the human musculoskeletal and nervous systems. Prerequisite: BIO 108. (F)

PED 213 Advanced Golf **0 2 1**

A course designed to further develop the skills learned in beginning golf. The majority of class time is spent at a local golf course. Prerequisite: PED 113 or approval of instructor. (F/S/SS)

PED 215 Advanced Tennis **0 2 1**

A course designed to develop the skills learned in PED 115 with special emphasis on singles and doubles strategy and tournament play within the class. Prerequisite: PED 115 or approval of instructor. (F/S/SS)

PED 216 Advanced Skiing **0 2 1**

A course designed for advanced students to perfect skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor. (W)

PHYSICAL SCIENCE

PHS 101 Man and His Physical Environment 3 2 4

An integrated perspective of the physical sciences with study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, and structure and utilization of atoms. Covers the role of science in the development of civilization. (F/SS)

PHS 102 Man and His Physical Environment 3 2 4

A continuation of PHS 101. Prerequisite: PHS 101. (W/SS)

PHS 103 Man and His Physical Environment 3 2 4

A continuation of PHS 102. Prerequisite: PHS 102. (S/SS)

PHYSICS

PHY 101 Physics: Work, Energy, Power 3 2 4

A study of the major areas of work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. (F)

PHY 102 Physics: Properties of Matter 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws, and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: PHY 101. (W)

PHY 103 Physics: Electricity 3 2 4

A study of the basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by friction, electricity by chemical action, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major topics in the course. Prerequisites: PHY 102, T-MAT 102. (S)

PHY 106 Applied Mechanics 5 0 5

A study of the concepts and principles of statics and dynamics. Includes parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Also covers concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Prerequisites: T-MAT 103 T-PHY 102. (S)

PHY 107 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and the basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisites: MAT 101, MAT 111, or T-MAT 105. (W)

PHY 108 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: PHY 107. (S)

PHY 109 Radiologic Physics 3 2 4

A course to provide radiology technology students with a third quarter of radiologic physics as a science elective. To be offered during the summer months and will require the same text as the preceding two quarters. Covers radioactivity, artificial radionuclides, health physics, and special radiographic equipment. Prerequisites: MAT 101, PHY 107, and PHY 108. (D)

PHY 110 Ultrasound 3 2 4

A course to provide radiology technology students with one quarter of instruction in the physical principles underlying ultrasound diagnosis. To be offered during the summer months. Covers wave characteristics in general, properties of sound waves, ultrasound transducers, characteristics of ultrasound beams, interaction of ultrasound with matter, ultrasound imaging techniques, and Doppler techniques. Prerequisite: PHY 109. (D)

PHY 120 Energy: Sources, Needs, Hazards 3 2 4

A course designed to increase the student's awareness of energy, both as a physical concept and as an economic issue. Covers topics including the properties, sources, and uses of energy; the economics of energy production; and the hazards associated with energy consumption. Students also learn how to perform energy conversion and cost calculations. Prerequisite: MAT 091. (D)

PHY 211 General Physics I 3 2 4

A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechanics, sound, and heat are included. (F)

PHY 212 General Physics II 3 2 4

A continuation of PHY 211 including magnetism and electricity. Prerequisite: PHY 211. (W)

PHY 213 General Physics III 3 2 4

A continuation of PHY 212 including light, optics, and modern physics. Prerequisite: PHY 212. (S)

PHY 1101 Applied Science 2 2 3

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids and gases; and basic electrical principles. Prerequisite: MAT 1101. (W)

PHY 1101A Automotive Applied Science 2 2 3

An introduction to physical principles and their applications in the automobile industry. Topics include measurement; properties of solids, liquids, and gases; and basic electrical principles. Prerequisite: MAT 1120. (W)

PHY 1102 Applied Science 2 2 3

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101. (S)

PHY 1102A Automotive Applied Science 2 2 3

The second of two courses of applied physical principles. Topics include heat and thermometry, force, motion, work, energy, power, and simple machines. Prerequisite: PHY 1101A. (S)

PHY 1110 Applied Science for Plumbers and Welders 2 2 3

This course is designed to instruct the student in basic scientific principles which relate to the plumbing/welding industry. Topics to be studied include measurement, properies of solids and gases and basic electricity. (S)

PLUMBING AND PIPEFITTING

PLU 101 Basic Plumbing and Pipefitting 2 6 4

A study of basic plumbing procedures to include measuring and threading pipe, installing various fittings and joints, designing simple supply and drain systems and similar projects. Emphasis will be given to practical procedures and use of industrial type projects using commercial tools and equipment. Flow characteristics of various commercial products will be studied and material requirements for these products will be emphasized. (SS)

PLU 1101 Plumbing I 4 12 8

The students are introduced to tools, fittings, and equipment used by plumbers; and acquainted to the basic facts and fundamentals of plumbing and pipefitting. (F)

PLU-A 1101 (Part-time) 2 6 4

PLU-B 1101 (Part-time) 2 6 4

PLU 1102 Plumbing II 4 12 8

Plumbing II covers the installation of water distribution systems, beginning with the source of supply and continuing with piping and sizing of piping. The heating storage and circulation of hot water is covered. Sewage waste and venting and various combinations of these are studied. (W)

PLU-A 1102 (Part-time) 2 6 4

PLU-B 1102 (Part-time) 2 6 4

PLU 1103 Plumbing III 4 12 8

This course presents the differences in materials and styles of lavatories, bathtubs and sinks. This course also presents the many ways that these fixtures can be installed. Gas piping and venting installation will also be designed and sized. Prerequisite: Plumbing II or by instructor approval. (S)

PLU-A 1103 (Part-time) 2 6 4

PLU-B 1103 (Part-time) 2 6 4

PLU 1104 Plumbing IV 4 12 8

The principles of steam and hot water boiler operation and installation are covered in Plumbing IV. Equipment used in heat transmission such as radiators, coils, convectors including interconnecting piping systems will be studied in this course. Process piping for industrial users will also be included. Prerequisite: PLU 1102, PLU 1103. (SS)

PLU-A 1104 (Part-time) 2 6 4

PLU-B 1104 (Part-time) 2 6 4

PLU 1105 Plumbing Code 3 0 3

The advanced plumbing student will be instructed in detail in the North Carolina Plumbing Code. A knowledge of the code, location of rules, articles and all graphs and tables will be studied. (SS)

POLITICAL SCIENCE

POL 201 American Federal Government 3 0 3

A study of the structure and function of the national government with emphasis on current political affairs. (W)

POL 203 Government—State and Local 3 0 3

A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Includes problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention is given to North Carolina. (F)

PSYCHOLOGY

PSY 101 Personal Development for Occupational Diploma Programs 1 2 2

A course dealing with a person's socialization process and his/her relationship to others. Contains an examination of one's personality development and his/her occupational/career interest. Relationships with customers and business associates may be emphasized for vocational programs. (F/W/S/SS)

PSY 201 General Psychology 3 0 3

A survey of psychology as the science of human behavior, to include theories and application of learning, physiological psychology, sensation and perception, individual differences, and social forces. (F/W/S/SS)

PSY 202 General Psychology 3 0 3

A continuation and expansion of PSY 201, to include group behavior, motivation, cognition, psychopathology, psychotherapy, and scientific methods. Prerequisite: PSY 201. (D)

PSY 203 Psychology of Adolescence 3 0 3

An overview of social-psychological conditions of adolescence in the Western world. General areas covered are description of adolescence, formative influences, behavior settings and problem areas. (W/S)

PSY 204 Child Behavior 3 0 3

An application of social learning theory to child behavior with emphasis on the acquisition, retention, and extinction of behavior through preadolescence. (S)

PSY 205 Personality and Adjustment 3 0 3

The study of the whole person which permits the learner to review the varied psycho-social factors that influence personality development and maintenance while, at the same time, being given the opportunity to experience personal growth and increased awareness of his/her personal-social life. (D)

PSY 206 Interpersonal Skills 3 0 3

A course providing an opportunity for the learner to acquire self-management skills and to increase his/her level of competence in interactions with others. Specific areas covered are communications, conflicts, cooperation, use of social power, and the application of social learning principles. (F/W/S/SS)

PSY 209 Human Sexual Behavior 3 0 3

A study of physiological, social, and interpersonal aspects of sex and sexual behavior, to include the human sexual system, the sex act, attitudes and behavior, and love and intimacy. (D)

PSY 210 Human Growth and Development 3 0 3

A presentation of the interaction of maturational and environmental factors in the development of the individual from conception to death; i. e., pre-natal and birthing influences; physical, cognitive and social development; adulthood and aging processes. Prerequisite: PSY 201. (F/W/S/SS)

PSY 213 Abnormal Psychology 3 0 3

An introduction to abnormal behavior—behavior that is detrimental to one's health, growth, or human function. Particular attention is given to personal-social interaction. Prerequisite: PSY 210.

PSY 215 Introduction to Exceptional Individuals 3 0 3

A course designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. Prerequisite: PSY 201. (W)

RADIOLOGY

RDT 101 Introduction to Radiologic Technology 2 0 2

A course presenting an overall view of radiologic technology and the part radiology plays in medicine. Students become acquainted with the general structure of applied medicine. Includes good ethical principles and the responsibilities of an allied health professional. (F)

RDT 102 Basic Patient Care 3 3 4

A course designed to present the student with the basic principles of patient care with particular emphasis on those procedures required in the radiology department. (F)

RDT 103 Radiation Protection I 1 0 1

A course presenting the student with the basic principles of radiation protection as they apply to the patient, fellow workers, and the technologist. (F)

RDT 109 Introduction to Clinical Techniques 0 6 2

An introduction to the hospital experience in which the student can expect to begin patient contact by transporting patients to and from the radiology department and dressing, instructing, and caring for them in the radiology department. The student will become competent in chest and abdominal radiography. (F)

RDT 110 Introduction to Radiographic Technique **1 2 2**

A very basic view of the exposure techniques used in radiographic procedures using the energized lab for demonstration. Also introduces radiographic accessories along with basic exposure computations. Prerequisites: RDT 101, RDT 103. (F)

RDT 111 Radiographic Procedures I—Extremities **6 2 7**

A study of terminology and basic principles of radiographic positioning. Covers the routine views for positioning the chest, abdomen, upper extremity, shoulder girdle, lower extremity, hips, and pelvis. The student gains experience working with radiographic phantoms in the energized lab. Prerequisite: RDT 102. (F)

RDT 112 Radiographic Evaluation **1 2 2**

A basic presentation of the controlling and influencing factors which affect each of the radiographic qualities. Includes learning to evaluate radiographic film characteristics. Prerequisite: RDT 110. (W)

RDT 113 Radiographic Procedures II—Skull and Spine **6 2 7**

A study in proper positioning of skull, sella turcica, petrous pyramids, coccyx, sacrum, the entire spine, the bony thorax, and soft tissue of the chest. Includes both routine and special views associated with each anatomical part. Prerequisite: RDT 111. (W)

RDT 114 Clinical Techniques I **0 15 5**

A course providing practical experience in the hospital, including processing of radiographs, patient care, ethical situations, and basic positioning of the upper and lower extremity, chest, abdomen, shoulder girdle, and pelvic girdle. Principles of radiographic exposure are applied by measuring each patient and utilizing a technique chart in order to set factors on the X-ray machine. Special emphasis is given to fluoroscopic procedures. Prerequisites: RDT 110, RDT 111. (W)

RDT 115 Radiographic Processing **1 2 2**

A course designed to present the student with the basic principles of processing with particular emphasis on automatic processing. Includes the use of intensifying screens. (S)

RDT 116 Radiographic Procedures III—Trauma and GI Procedures **4 0 4**

A presentation of positioning for the immobile trauma patient, along with the procedures used to visualize the gastrointestinal tract. Prerequisite: RDT 113. (S)

RDT 117 Clinical Techniques II **0 24 8**

A course providing practical experience to improve skills in radiographic exposure, patient care contact, and routine positioning of the skull and entire spine. Special emphasis is placed on portable and surgical radiography. Prerequisites: RDT 112, RDT 113. (S)

RDT 118 Radiographic Procedures IV—Urinary and Reproductive Radiography **1 2 2**

A course focusing on radiography of the genitourinary system. Includes instruction on preparation of radiographic room, the patient, and the contrast media used in the procedures. Prerequisite: RDT 116. (SS)

RDT 119 Clinical Techniques III **0 24 8**

A course providing practical experience in emergency procedures, including all routine positioning; fluoroscopic, mobile, and surgical radiography; and exposure factors. Special emphasis is placed on patient handling in all phases of radiography. Prerequisites: RDT 115, RDT 116. (SS)

RDT 120 Imaging Modalities **3 0 3**

An introduction to the theory and application of imaging modalities other than radiography. (SS)

RDT 210 Radiographic Equipment and Accessories **3 0 3**

A course designed to correlate radiographic equipment with the physics of radiation. Presents an indepth study of radiographic tubes and generators. Prerequisite: RDT 115.

RDT 211 Clinical Techniques IV **0 24 8**

A course providing practical experience in the hospital and involving more advanced work in special procedures, radiation therapy, and nuclear medicine. A continuation of practice in all routine positioning, good darkroom techniques, proper radiographic techniques, radiation protection, and good patient care. Prerequisite: RDT 119. (F)

RDT 212 Radiographic Procedures V—Angiography **3 0 3**

A course designed to present the student with information on special procedures and the special equipment and skills needed to perform them. Prerequisite: RDT 118. (F)

RDT 213 Principles of Exposure I **3 0 3**

The first of two courses designed to develop a thorough working knowledge of the manipulation of exposure factors. Covers the basic principles needed to construct technique charts for all situations and kilovoltage ranges. Prerequisite: RDT 210. (W)

RDT 214 Clinical Techniques V **0 24 8**

A course providing practical experiences in the hospital to include routine positioning of all body parts. Special emphasis is placed on radiography of the total digestive tract, urinary tract, reproductive, and tomographic examinations. Prerequisite: RDT 211. (W)

RDT 215 Radiographic Procedures VI—Pediatric and Dental **3 0 3**

A course emphasizing pediatric and dental radiography and the principles of tomography. Also covers radiation protection as it applies to these areas. Prerequisite: RDT 212. (W)

RDT 216 Principles of Exposure II **2 2 3**

The second of two courses designed to develop a complete and thorough working knowledge of the manipulation of exposure factors through the completion of problems and experiments. Prerequisite: RDT 213. (S)

RDT 217 Clinical Techniques VI **0 24 8**

A course providing practical experience in the hospital and involving all radiographic positioning, good patient care, radiation protection, and manipulation of radiographic technical factors. Special emphasis is on mammography and pediatric and dental radiography. Prerequisite: RDT 216. (S)

RDT 218 Radiographic Procedures VII—Special Views of the Whole Skeleton **2 0 2**

A course emphasizing special radiographic positioning of the entire skeleton. (S)

RDT 219 Radiation Protection II **2 0 2**

An indepth study of radiation protection as it affects all modalities. Prerequisites: RDT 103, RDT 120, RDT 217. (SS)

RDT 220 Quality Control Seminar **2 2 3**

A course designed to help the student recognize the difference between diagnostic and poor quality radiographs and learn how to maintain quality control. Prerequisite: RDT 216. (SS)

RDT 221 Clinical Techniques VII **0 24 8**

A total overview of all positioning, exposure factors, and other related materials covered in the previous seven quarters. Special emphasis is placed on regular instructor-student clinical contact. Offered in the final quarter in the clinical facilities. Prerequisite: RDT 217. (SS)

READING

NOTE: Reading Proficiency Requirements

In the interest of helping students succeed in their chosen curricula, all entering students at Caldwell Community College and Technical Institute are tested for reading proficiency. Any student who does not have the required reading proficiency level for his/her curriculum shall be advised to enroll in the reading course which is closest to his/her independent reading level.

RDG 090 Basic Reading I **1 3 2**

A course designed for students whose independent reading levels range from zero to fourth grade. Basic word recognition, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory. (F/W/S/SS)

RDG 091 Basic Reading II **1 3 2**

A course designed for students whose independent reading levels range from fifth to sixth grade. Sight vocabulary, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory or RDG 090. (F/W/S/SS)

RDG 092 Basic Reading III **1 3 2**

A course designed for students whose independent reading levels range from seventh to eighth grade. Intermediate vocabulary, word attack, comprehension, and study skills are taught. Beginning techniques for improving reading speed are introduced. Completion of this course earns credit only toward a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 091. (F/W/S/SS)

RDG 093 Developmental Reading I 1 3 2

A course designed for students whose independent reading levels range from ninth to tenth grade. Vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Completion of this course earns credit only toward a vocational or technical degree or diploma. Prerequisite: Reading Inventory or RDG 092. (F/W/S/SS)

RDG 101 Developmental Reading II 1 3 2

A course designed for students whose independent reading levels are tenth grade or above. Advanced vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Prerequisite: Reading Inventory or RDG 093. (F/W/S/SS)

RECREATION

REC 101 Introduction to Recreation Services 5 0 5

A course introducing the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services is included with visitations being scheduled to public, private, industrial, and institutional recreational programs. (F)

REC 102 Recreation and Special Populations 3 0 3

A course designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of this course. (S)

REC 103 Recreation Programming 3 0 3

A study of the underlying principles for effective recreation programming. Includes an overview of the variety of program areas associated with recreation with attention given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge to enable him to plan, organize, and provide leadership in program participation and to develop an understanding of the facilities and equipment necessary. This course also emphasizes the adaptation of activities and equipment for special groups. (W)

REC 104 Rehabilitation Services 3 0 3

A course designed to aid the students' understanding of the therapies in a rehabilitation service. Special emphasis is placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable time is centered around guest speakers from the different therapies. (F)

REC 105 Areas and Facilities 3 0 3

A course exploring the different types of indoor and outdoor recreational areas and facilities and their uses. The principles in planning, the dimensions and standards, maintenance, and operation of areas and facilities such as parks, playgrounds, ball fields, centers, tennis courts, swimming pools, and others are studied. Consideration is given to architectural barriers of areas and facilities needed by the handicapped participant. (S)

REC 106 Camping **5 0 5**

A course designed to develop an understanding of the operation of a camping program. Particular course emphasis is placed on camping for the ill and handicapped and the architectural barriers which often exist. Operational concerns, varying from the use of volunteers to the maintenance of grounds, are covered in this course. (S)

REC 121 Social Recreation **3 0 3**

A course to develop skill in planning social recreational activities. Party planning, special events, social games, quiet games, trips and picnics, and decorating are emphasized in this course. For practical experience, students have the opportunity to work with different age groups on community projects in social recreation. (W)

REC 202 Recreation Leadership **3 0 3**

A course to build basic skills in working with people, an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students have the opportunity to observe community leaders and to evaluate their effectiveness. (W)

REC 203 Water Sports **1 4 3**

A course intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention is given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games are included. The water skills are taught at a local pool. Students are afforded the opportunity to obtain a senior life saving certificate. (S)

REC 205 Outdoor Education **3 0 3**

An investigation of the history and significance of the outdoor education movement and an examination of current ideas and practices. Attention is focused on environmental problems, conservation, wildlife, nature, fisheries, and other ecological points of interest. Field trips supplement lectures. (S)

REC 208 Intramural and Sports Management **0 6 2**

The laboratory experience consists of the planning, direction, and evaluation of intramural and athletic programming in educational and residential settings. Special emphasis will be placed on sports officiating, sports skill instruction, publicity, and other related activities in administering a recreation program. (F/W/S/SS)

REC 209 Field Work **0 9 3**

A required nine hours of field placement to be completed during the fifth quarter of the recreation leadership curriculum. This field work is under the supervision of a professional worker in the specific area of interest. (W)

REC 210 Field Work **0 15 5**

The sixth quarter of the recreational leadership curriculum is primarily practical work experience in the student's chosen area of interest. Fifteen (15) hours of field work per week are devoted to this placement. This placement is under the direction of a full-time professional. (S)

REC 211 Recreation Seminar **1 0 1**

A course to prepare the student to become a professional recreation leader. Special emphasis is given to professional organizations, job applications, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty coordinates this seminar. Prerequisite: completion of 5 successful quarters in the recreation leadership curriculum. (S)

RED 215 Dance **1 4 3**

A skill course designed to develop specific talents in the area of recreational dance. Activity sessions stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the handicapped groups are also stressed. Adequate class time is used for student participation and practice. (F)

RELIGION

REL 201 Introduction to Old Testament **3 0 3**

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament. (F/W)

REL 202 Introduction to New Testament **3 0 3**

A critical examination of the rise and spread of the Christian faith as recorded in the New Testament with special emphasis in the ministries of Jesus and Paul. (W/S)

REL 203 World Religion **3 0 3**

An introduction to the major religions of the world, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Islam, and Christianity, based on their history, literature, teachings, and present day practices. (F/W/S/SS)

REL 204 Religion in America **4 0 4**

An objective study of religion movements in America today to include traditional and ethnic religions, supernatural phenomena, cults, generalized as well as non-religious concepts. The course is designed to be flexible in order to include current religious trends as they evolve. (D)

SCIENCE-ENVIRONMENTAL

SCI 100 Natural Environment **3 0 3**

A survey course combining the general areas of biology, chemistry, and physics. The content is intended to relate these three areas to each other as they influence everyday living. (D)

SELECTED TOPICS

Subject Area 199 **1-6 credit hours**

Selected topics in subject areas. (D)

SOCIOLOGY

SOC 101 Community Resources **3 0 3**

A study of the services extended to families in the local, state, and federal community with emphasis placed on one's being able to recognize and use local, state, and federal resources in achieving families' goals and implementing their value system.(D)

SOC 201 Introduction to Sociology **3 0 3**

A study of the fundamental principles and concepts of sociology with emphasis on contemporary American institutions in relation to technological change, ethnic groups, population trends, and social control. (F/S/SS)

SOC 203 Contemporary Problems and Social Issues **3 0 3**

A critical analysis of some of the major current social issues and problems in American society. (S/SS)

SOC 205 Marriage and the Family **3 0 3**

A study of family relationships, their forms and functions. Included in this study are cultural patterns, mate selection, sex roles, marital adjustment and maladjustment, child rearing, and the future of the American family. (F/W/S/SS)

SOC 206 Sociology of Sex Roles **3 0 3**

A course dealing with the changing sex roles in America today. The male and female roles are studied in terms of personality, communication skills, intelligence, socialization, status achievements, power, politics, and physical abilities. The purpose of the course is to examine sex roles as they affect or are affected by the total society. (D)

SPANISH

SPA 101 Elementary Spanish **3 2 4**

A study of the basic elements of Spanish with emphasis on listening comprehension, oral communication, pronunciation, and grammar. The beginning sequence is designed for students with fewer than two years of high school Spanish. A two-hour lab is required for beginning levels. (F)

SPA 102 Elementary Spanish **3 2 4**

A continuation of Spanish 101. Prerequisite: SPA 101. (W)

SPA 103 Elementary Spanish **3 2 4**

A study of verb tenses, vocabulary, and sentence patterns with emphasis on understanding and speaking the language. Prerequisite: SPA 102. (S)

SPA 201 Intermediate Spanish **3 0 3**

A continuation of the study of Spanish with emphasis on oral communication, reading, writing, culture, and history. A lab is provided for those in intermediate levels needing or desiring extra work. Prerequisite: SPA 103 or two years of high school Spanish and approval of instructor. (F)

SPA 202 Intermediate Spanish **3 0 3**

A continuation of intermediate Spanish with emphasis on listening and understanding, speaking, reading, and writing. Prerequisite: SPA 201. (W)

SPA 203 Intermediate Spanish 3 0 3

A continuation of intermediate Spanish with emphasis on the four basic skills and on grammar. Prerequisite: SPA 202. (S)

SPA 211, 212, 213 Advanced Spanish 3 2 3

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis is on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203. (D)

SPEECH

SPH 100 Interpersonal Communication 3 0 3

A course to help the student develop speaking skills in informal speaking situations. Emphasis will be placed on improving one's self-concept in relation to communication and working toward overcoming self-consciousness. Emphasis is placed on the communication process, interpersonal communication, nonverbal communication, and participating in small groups. (F)

SPH 101 Fundamentals of Speech 3 0 3

A study of oral communication with emphasis on speech theory, speech composition, preparation, and presentation. (F/W/S/SS)

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I 1 11 5

A study of the history and periods of furniture. Includes tools and equipment, hammer technique, staple gun technique, spring up methods, and webbing and burlap application. (D)

UPH 1112 Upholstery Materials and Methods II 1 11 5

A continuation of UPH 1111 and basic methods for inside and outside upholstery and cushion styles. Prerequisite: UPH 1111. (D)

UPH 1113 Upholstery Materials and Methods III 1 11 5

A course in the styles of furniture, including sofas, love seats, and recliners. Covers techniques in trimming band tufting and piping with continuous practice in these areas. Prerequisite: UPH 1112. (D)

UPH 1114 Upholstery Sewing I 1 11 5

A study of upholstery sewing. Includes basic operations of the sewing machine and simple sewing techniques. (D)

UPH 1115 Upholstery Sewing II 1 11 5

A course covering advanced upholstery sewing, sewing matched stripes, making patterns, and other sewing techniques. Prerequisite: UPH 1114. (D)

UPH 1116 Upholstery Cutting I 1 11 5

A course providing job experience devoted to basic cutting techniques, how to measure frames, cutting with shears, and lay cutting. (D)

UPH 1117 Upholstery Cutting II 1 11 5

A course in making patterns, cutting matched patterns, and lining up and cutting striped patterns. Prerequisite: UPH 1116. (D)

WELDING

WLD 101 Welding Practices **3 0 3**

A course of study designed to acquaint the student with the fundamentals of shop safety, shop procedures, and tool and welding machine use and care. Study of welding theory, techniques, and machines is limited to nomenclature and function as it relates to proper welding knowledge of application and technique. During the course, knowledge and skill development include welding equipment and tools, oxyacetylene welding, gas welding of various type joints, and selection of proper welding materials used in the gas process. Related instruction develops symbol recognition. (F)

WLD 120 Welding, Oxyacetylene **2 6 4**

An introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Covers welding procedures such as practice in puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, and hard and soft soldering. Safety procedures in the use of tools and equipment are stressed through the program of instruction. The student performs mechanical testing and inspection to determine quality of the welds. (W)

WLD 121 Arc Welding **2 6 4**

A study of the operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect weaknesses in welding. Safety procedures in the use of tools and equipment are emphasized throughout the course. Prerequisite: WLD 120. (S)

WLD 122 Commercial and Industrial Practice **2 3 3**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 120, WLD 121. (F/S)

WLD 1101 Auto Body Welding **1 3 2**

A course providing welding demonstrations by the instructor and practice by students in the welding shop. Includes safe and correct methods of assembling and operating the welding equipment. Practice is given for bronze welding, fusion welding, fillet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. (F)

WLD 1112 Welding Codes and Inspection **3 0 3**

An introduction to the various types of tests and testing procedures used in testing the quality of the weld. Students perform the details of the test which gives adequate information on the quality of the weld. Tests to be performed include guided bend, tensile, magnetic partical, dye penetrant, X-ray, and hardness. Various sections of codes AWS, ASME, and API are studied according to the student's interest. (F)

WLD 1120 Welding Theory and Practice I 3 12 7

A course dealing with the orientation to all oxyacetylene, shielded ARC shop equipment. Includes basic fundamentals of equipment set-up, safety demonstrations, practice procedures with group and individual demonstrations by the instructor. (F)

WLD-A 1120 (Part-time) 2 6 4

WLD-B 1120 (Part-time) 1 6 3

WLD 1121 Welding Theory and Practice II 2 18 8

A course providing the student with a thorough understanding of ARC welding fundamentals and safety. Manual skills are developed to produce high quality ARC welds in all positions on mild steel. (W)

WLD-A 1121 (Part-time) 1 6 3

WLD-B 1121 (Part-time) 1 6 3

WLD-C 1121 (Part-time) 0 6 2

WLD 1122 Commercial and Industrial Practice 3 9 6

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 1120, WLD 1121. (SS)

WLD-A 1122 (Part-time) 2 6 4

WLD-B 1122 (Part-time) 2 6 4

WLD-A 1123 Inert Gas Welding I (TIG) 2 6 4

A course providing the student with a thorough understanding of tungsten inert gas ARC welding fundamentals and safety. Provides training to develop the manual skill necessary to make high quality welds in all positions. Prerequisite: WLD 1121. (S)

WLD-B 1123 Inert Gas Welding II (MIG) 2 6 4

A course providing the student with a thorough understanding of metallic inert gas welding fundamentals and safety. Provides training to develop the manual skills necessary to make high quality welds in all positions. (SS)

WLD 1124 Pipe Welding 3 12 7

A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121. (S)

WLD 1124-1 (Part-time) 2 6 4

WLD 1124-2 (Part-time) 1 6 3

WLD 1125 Certification Practices 3 6 5

A course involving practice in welding the various materials to meet certification standards. The student uses various tests, including the guided bend and the tensile strength tests, to check the quality of his/her work. Emphasis is placed on attaining skills in producing quality welds. Prerequisites: WLD 1121, WLD 1124. (SS)

WLD 1126 Advanced Metal Inert Gas Welding 2 8 5

An intensive study of advanced metal inert gas welding with emphasis on both production and general uses of this process. Studies are made in wire types, size, and selection. The student works with this type machine exclusively, with practice in low and high carbon steels, stainless steels, and aluminum. Shielding gases used include carbon dioxide, argon, and various mixtures. Prerequisite: WLD 1123. (D)

WLD 1129 Basic Welding 1 3 2

A study of the basic characteristics of metals, equipment, and its construction and operation presented by means of audiovisuals and other educational media. Includes welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment are stressed. Practice is given in surface welding, bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. (F)

WLD 1130 Auto Body Welding 1 3 2

A course providing welding instruction and shop demonstrations in modern welding methods used by mechanics and auto body repairmen to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. (W)

WLD 1131 Design of Welded Structures 3 6 5

A study of proper procedures used in the welding industry for fabrication and reinforcement. The student works with various methods of reinforcement and placement of reinforcing members. Studies are made of strengths of various metals, both ferrous and nonferrous. Prerequisite: WLD 1122 or approval of instructor. (D)

WLD 1132 Advanced Tungsten Inert Gas Welding 2 8 5

A course consisting of working exclusively with this process with emphasis on proper selection of materials, filler rod, shielding gases, and electrode manipulation. There are exercises in cost estimating and job estimating. The majority of the work is in nonferrous metals. Prerequisite: WLD 1123. (D)

WLD 1133 Operations of the Job Shop 5 3 6

A course dealing with the problems that are unique in the job shop. There are exercises in job estimating and cost estimating. Studies are made in material procurement and handling. Proper procedure for bidding on jobs is stressed. Prerequisite: WLD 1123. (D)

WLD 1134 Welding Power Supplies 3 1 3

A study of alternating current, direct current, and combination welding power supplies. Studies are also made of portable motor generator units. High frequency and remote control power supplies are covered, with exercises in machine selection to match the operation to be performed. Prerequisite: WLD 1121. (D)

CONTINUING EDUCATION PROGRAMS

GENERAL INFORMATION

WHAT IS IT?

Continuing Education provides an opportunity to:

(1) Finish high school
(2) Upgrade and improve present job skills
(3) Be trained while on the job
(4) Prepare for future employment
(5) Learn new hobbies and develop creative skills or talents for leisure activities
(6) Learn better home maintenance and repair techniques.

The continuing education department of Caldwell Community College and Technical Institute is an outreach service for Caldwell and Watauga counties. The program is designed to meet the needs and desires of the community by offering a wide variety of subjects taught at convenient hours in convenient locations in Caldwell and Watauga counties.

WHO CAN ENROLL?

Any individual who is 18 years of age or whose regular high school class has graduated. Persons between 16 and 18 years old who have special needs may enroll if they have the WRITTEN PERMISSION of the school system last attended. (Under certain conditions, the policy on page 7 will apply.)

WHAT DOES IT COST?

There is a non-refundable registration fee of $8 or $15, depending upon the nature and purpose of each course or workshop. Textbooks or special materials may be purchased from the campus bookstore.

HOW CAN I ENROLL?

Persons can register for a class by attending the first session. Applicants are usually admitted on the "first come, first served" basis.

HOW LONG DO COURSES LAST?

Most course last approximately 10 to 11 weeks, depending on the nature of the course.

WHERE ARE CLASSES HELD?

Adult classed are held anywhere in Caldwell and Watauga counties where there are adequate facilities and equipment. In addition to the college campus, classes are held in community centers, public school buildings, churches, businesses, factories, and private homes.

WHEN ARE CLASSES HELD?

Day and evening classes are usually scheduled on a quarterly basis. Most classes meet once or twice a week, Monday through Friday, until the end of the course.

HOW DO I KNOW WHEN A COURSE I WANT IS OFFERED?

Information about classes is released each quarter through the local news media. Quarterly schedules are published and distributed by the college.

Information concerning course offerings may be obtained by calling the continuing education department at 396-3311 (Granite Falls), or 728-4323 (Lenoir), or 297-2185 (Boone).

WHAT CREDIT CAN I GET?

Most continuing education courses are noncredit. However, continuing education units (CEU) will be given for certain courses. These courses are designated and advertised as giving CEU credit prior to each quarter.

WHAT COURSES ARE OFFERED?

A partial list and description of courses available are listed in this catalog. However, if 12 or more people are interested in a subject not listed and a qualified instructor and suitable space are available, Caldwell Community College and Technical Institute will be happy to offer the course.

GENERAL ADULT OFFERINGS

Numerous continuing education noncredit classes are offered under the heading of general adult education. Many of these classes are taught off campus in recreation centers, schools, churches, and, in a few instances, private homes.

General adult courses fall into the broad categories of the arts, crafts, job training and upgrading, practical personal skills, and special needs courses such as sign language for the deaf and driver's education for adults.

Special programs usually available on an annual basis include Great Decisions, social issues, comparative religions, and projects funded by the North Carolina Endowment for the Humanities.

HOME ECONOMICS

Caldwell Community College and Technical Institute offers varied courses in the home economics area. Training and education courses are provided for the individual and the professional. Among general interest courses offered are the following:

- Clothing and Textiles
  - Beginning Sewing
  - General Sewing
  - Tailoring
  - English Smocking
  - Children's Clothing Construction
  - Sewing Clinic
  - Clothing and Pattern Alterations
  - Lap Quilting
  - Applique
  - Patchwork
- Foods and Nutrition
  - Microwave Cooking
  - Mexican Cookery
  - Vegetable Cookery
  - Breadmaking
  - Holiday Cooking
  - Japanese Cooking
  - Chinese Cooking
  - Buffets and Entertaining
  - Diabetic Cookery
  - Diet and Weight Control
  - Party Foods
- House and Home Furnishings
  - History of Furniture
  - Interior Design
  - Floral Arranging
  - Use and Care of House Plants

Designated classes in the Home Economics area can be offered for certificate renewal credit.

EARLY CHILDHOOD AND PARENT EDUCATION

Caldwell Community College and Technical Institute offers a wide variety of courses in Early Childhood/Family Life. Among courses included in these areas are the following:

- Lamaze
- Pre-natal and Infant Care
- Parenting of Pre-Schoolers
- Working with the Young Child
- Early Childhood Education
- Child Nutrition and Behavior
- Parent Effectiveness Training
- Learning Through Play
- Math, Language, Science and Music in Early Childhood
- Adolescent Sexuality
- Small Group Approach to Growth and Learning
- Discipline Through Glasser
- Coping With Hyperactivity

The program is designed for preschool assistants and parents.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses are provided in Caldwell and Watauga counties in cooperation with the local public schools. Students receive one credit toward certificate renewal for each 10 hours of successfully completed work. Course offerings have included:

Mental Health in the Classroom
Metric System
Teaching the Exceptional Child
Astronomy
Minority Awareness
History of Caldwell County
Sports Medicine
Communication Skills
Drug Abuse/Use
Education and Society
Great Decisions
Career Education
Modern Novel
Industrial Articulation
Environmental Curriculum
Value Clarification

MANAGEMENT DEVELOPMENT PROGRAM

The management development program offered by Caldwell Community College and Technical Institute is designed to give the new manager or supervisor a headstart and to make a good manager better. The program is based on individual development instead of tests and grades. Managers and future managers should enroll in the program with the idea of improving their management skills.

Classes will be scheduled on a regular basis day or night, in the plant or at the college. Interested persons may preregister by calling the department of continuing education. In addition to the registration fee, there may be a small charge for books, materials and supplies.

Each person completing 150 hours of instruction will receive a diploma in management development. An individual could earn the diploma in approximately one year by attending class one night per week during that year. Course offerings have included:

Art of Motivating People
Principles of Supervision
OSHA and First Aid
Human Relations and Motivation
Effective Communications
Economics and Controlling
Job Instruction Training
Labor Laws for Supervisors
Effective Writing
Effective Speaking
Speed Reading
Creative Thinking
Job Analysis Training
Employee Evaluation and Interviewing
Motion and Time Study

NEW AND EXPANDING INDUSTRY TRAINING

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs. In the endeavor to accomplish this objective, the college provides a training service for new and expanding industries in the community.

Subject to minimal limitations, the college, in cooperation with the Industrial Service Division of the N. C. Department of Community Colleges, will design and administer a special program for training the production manpower required by any new and expanding industry creating new job opportunities in North Carolina.

The major purposes of this program are to help new or expanding industry meet immediate manpower needs and to encourage industry to develop long-range training programs to satisfy continuing replacement and retraining needs.

The program includes:

1. Consultation in planning training program needs
2. Selection and training of instructors who may be recruited from the company and/or outside sources
3. Payment of instructors' wages
4. Provision of suitable space for a temporary training facility
5. Assumption of installation costs of equipment in temporary training facility
6. Payment of one-half the cost of nonsalvageable materials expended in the training program.

SKILL TRAINING PROGRAMS

Caldwell Community College and Technical Institute's continuing education division offers courses designed either to upgrade job skills, to help persons develop new skills so that they may become more proficient in their vocations, or to train persons in new occupations, vocations, or job skills.

The courses are offered at a time and place convenient for the students, based on the number of students, and the availability of facilities and necessary equipment. These courses can also be offered in a plant or other places of business where certain skill training is needed.

Skill courses that may be offered by the institution cover a wide area of skills from office to plant.

APPRENTICESHIP PROGRAM

The apprenticeship program has been recognized as one of the leading methods for acquiring the skills and knowledge necessary to become job-skilled craftsmen. Apprenticeship programs are usually on-the-job training with related instruction. CCC & TI, in cooperation with the Apprenticeship Division of the North Carolina Department of Labor, Business and Industry, provides the related instruction for the apprenticeship. The college coordinates and conducts the related instruction for both registered and non-registered apprentices.

The apprentice may attend the classroom portion of training during the day or evening when the desired classes are offered. Some of the courses may be studied in the programmed method in the individualized instruction program.

An individual desiring entrance into such a program should consult his/her employer, apprenticeship representative, or the coordinator of industry programs at CCC & TI.

APPRENTICE LINEMAN'S TRAINING PROGRAM

The apprentice linemen's training program is designed to provide job training to men and women who work in public electric utilities, private electric utilities, telephone companies, municipalites, electric cooperatives, and other related lineman groups.

Listed below are the types of courses that are taught in the lineman's training school at Caldwell Community College and Technical Institute. Most of these classes consist of 40 hours of training and are usually completed in one week.

Apprentice Lineman I
Apprentice Lineman II
Apprentice Lineman III
Apprentice Lineman IV
Advanced Bucket School
Advanced Hot Stick School
Transformer School
Staking School
Underground Cable School

HEALTH RELATED TRAINING

The department of continuing education of Caldwell Community College and Technical Institute offers special courses in nursing and other health related occupations to the local community. Many of these special programs are administered in cooperation with the area health institutions and agencies. Course offerings have included:

Standard First Aid and Advanced First Aid
CPR (Cardio-pulmonary Resuscitation)
Nursing Assistant
Health Care Technician
R. N. Refresher Courses
R. N. Management Training
First Responder
Review classes in the health professions
Medical Terminology
Audio-Metric Testing
EMT (Emergency Medical Technician)
Paramedic Training
Geriatrics Assistant
Coronary Care
Pediatric Nursing

SPECIAL NEEDS PROGRAMS

To meet the total educational needs of the community, Caldwell Community College and Technical Institute's department of continuing education offers courses for "special populations." Classes are conducted in sheltered workshops, rest homes, nursing homes, senior centers, treatment centers, prisons, and varied other meeting places where persons with special needs are located.

The types of classes offered are directly related to the needs of each group but overall represent a wide variety of offerings. These have included auto mechanics, small engine repair, activity coordination, crafts, proper grooming and hygiene, driver's training, woodworking, quilting, group speech therapy, culinary arts, reality orientation, certification in activity coordination, alcohol and drug abuse, nutrition, basic home living skills, and job readiness.

FIRE SERVICE TRAINING

Caldwell Community College and Technical Institute offers fire service training to both volunteer and career firemen. This training program is designed to increase firemen's technical knowledge, to train fire service personnel in the latest techniques and methods of fire fighting, to improve their skills in fireground operations, and to expose them to a variety of fire situation experiences.

The training program is taken directly to the individual fireman. Training sessions are held in local fire departments allowing the individuals to be trained as an organized group utilizing equipment they would ordinarily use in controlling fire.

A certificate is awarded to each person successfully completing the course. Course offerings have included:

Industrial Fire Brigade
Portable Fire Extinguisher
Business Fire Safety
Firemanship Training (Beginning and Advanced)
Fire Apparatus
Hose Practice
Breathing Apparatus
Home Fire Safety
Pump Schools
Rope Practices

POLICE SCIENCE

Caldwell Community College and Technical Institute offers police science training to personnel of law enforcement agencies. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

North Carolina State Law requires that new police officers complete 240 hours of police science training within one year after employment. These courses are offered annually by the college. Courses are also offered to those officers who wish to upgrade job skills.

A certificate is issued upon completion of each course but credit cannot be transferred and applied toward an associate in applied science degree. Course offerings have included:

Police Report Writing
Police Firearms Training
Police Science I
Police Science II
Weapons Safety
Police Communications/Radio
Introduction to Criminal Investigation
Jail School
Laws of Arrest
Inmate Counseling
Civil Disorder
Cartridge Reloading
History of Constitutional Law
Chemical Tests/Alcohol

ADDITIONAL COURSES

If 12 or more people want to learn about a subject which is not currently offered, the college will make every effort to find a qualified instructor and offer the course anywhere in Caldwell or Watauga counties where suitable space is available. Requests may be made by calling the continuing education department 728-4323 (Lenoir), 396-3311 (Granite Falls—Hickory), or 297-2185 (Boone).

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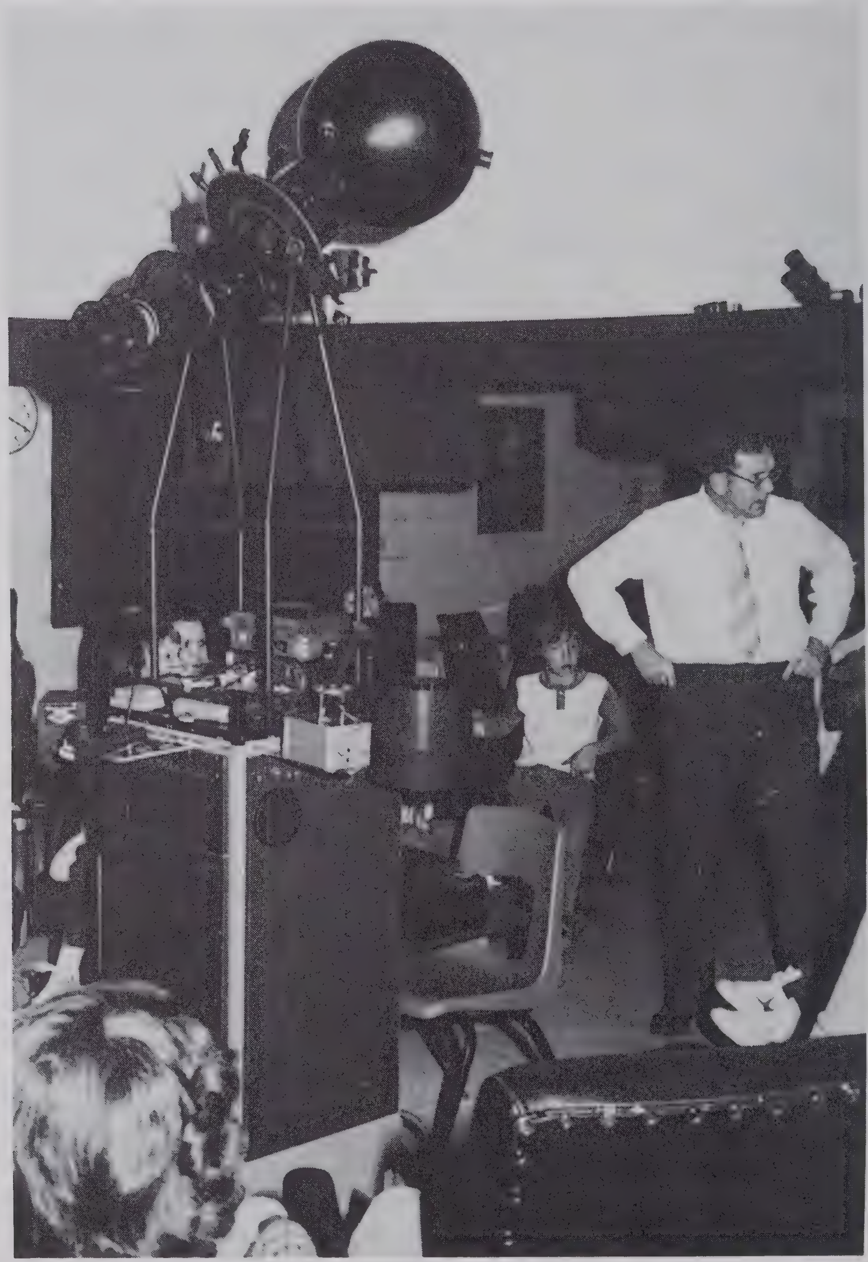

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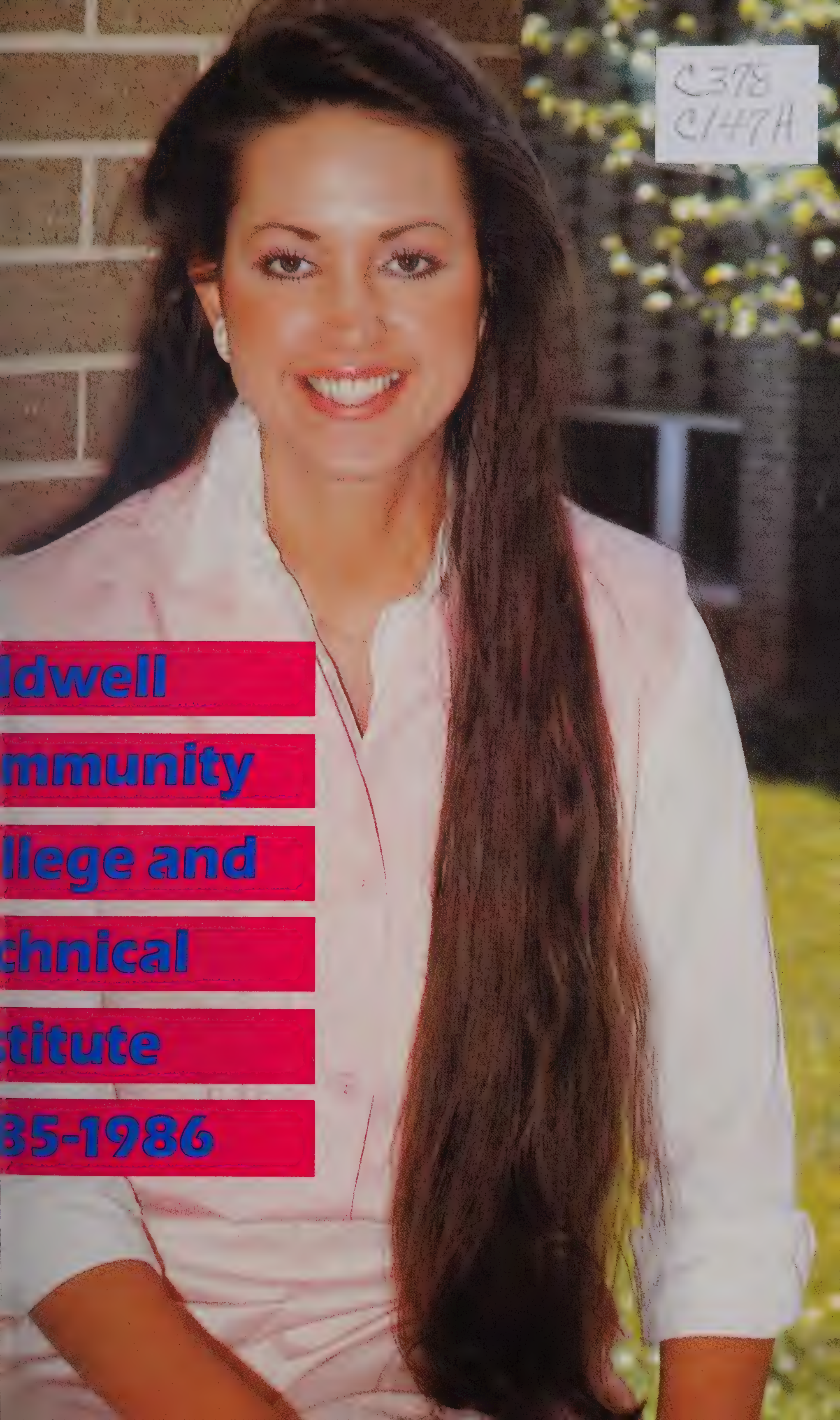

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On our cover . . . .

MEET LINDA MAYE - a 1985 graduate of the radiography program at Caldwell Community College and Technical Institute.

Linda is one of five people in her family to attend CCC & TI. Why? Because, as Linda says, "... CCC & TI has a good reputation and is very convenient for me."

Photos by Sherry Wrenn

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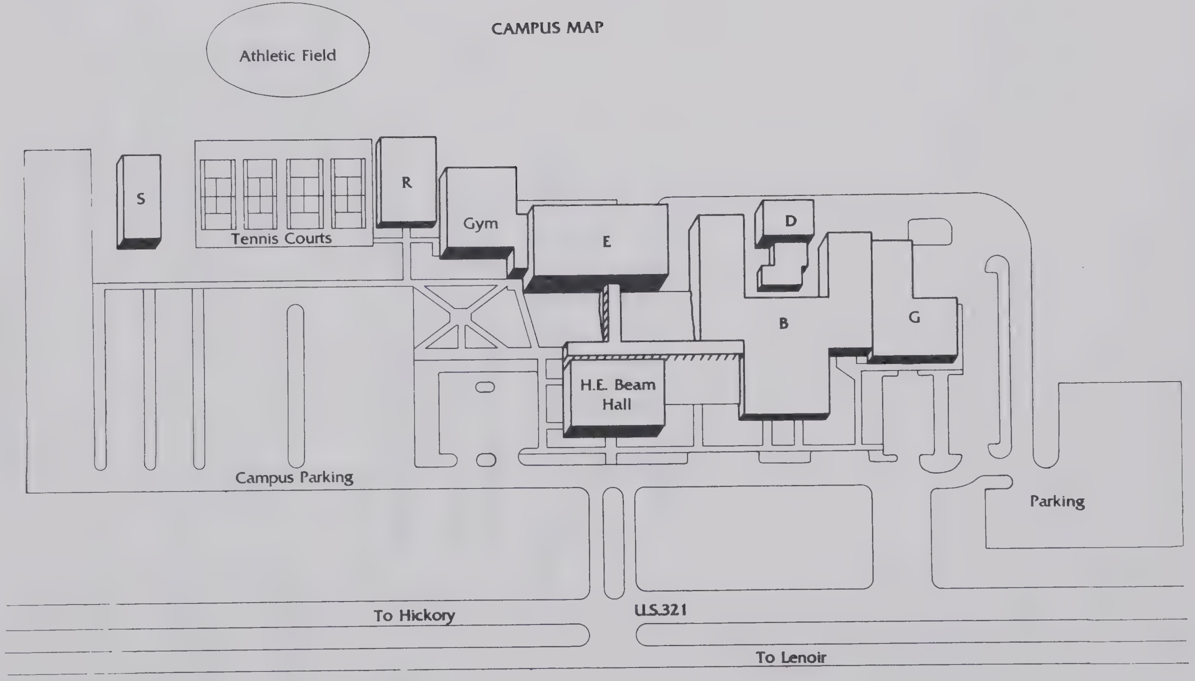
GENERAL CATALOG

Volume XIV, Number 1
Effective September 1, 1985

CAMPUS MAP


Athletic Field
S
Tennis Courts
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Gym
E
D
B
G
H.E. Beam Hall
Campus Parking
Parking
To Hickory
U.S.321
To Lenoir

ACADEMIC CALENDAR 1985-86

FALL QUARTER

Monday, September 2	Labor Day Vacation—Institution Closed
Tuesday, September 3	Faculty/Staff Orientation—Evening Registration for Watauga Campus
Wednesday, September 4	Orientation/Registration for New Students—Caldwell Campus
Thursday, September 5	Registration, Caldwell Campus
Friday, September 6	Faculty Planning Day
Monday, September 9	Classes Begin
September 9, 10, 11	Late Registration
Tuesday, October 15	Last Day to Drop Courses
November 4-8	Advisement/Early Registration for Winter Quarter
November 20, 21, 22	Exams
Friday, November 22	Fall Quarter Ends
Tuesday, November 26	Professional Development Day
Wednesday, November 27	Institution will close at 5:00 p.m. for Thanksgiving Holidays

WINTER QUARTER

Monday, December 2	Registration, Caldwell Campus
Tuesday, November 3	Registration, Watauga Campus
Wednesday, November 4	Classes Begin
December 4, 5, 6	Late Registration
Friday, December 20	Christmas Holidays Begin After Last Class
December 23-January 1	Institution will close 5 p.m. on Dec. 23 for Holidays
Thursday, January 2	Classes Resume
Tuesday, January 21	Last Day to Drop Courses
February 10-14	Advisement/Early Registration for Spring Quarter
February 26, 27, 28	Exams
Friday, February 28	Winter Quarter Ends

SPRING QUARTER

Monday, March 3	Faculty Planning Day/Watauga Registration
Tuesday, March 4	Registration, Caldwell Campus
Thursday, March 6	Classes Begin
March 6, 7, 10	Late Registration
Thursday, April 27	Easter Holidays Begin After Last Class
Friday, March 28	Professional Development Day
Monday, April 7	Classes Resume
Friday, April 21	Last Day to Drop Courses
May 12-16	Advisement/Early Registration for Summer Quarter

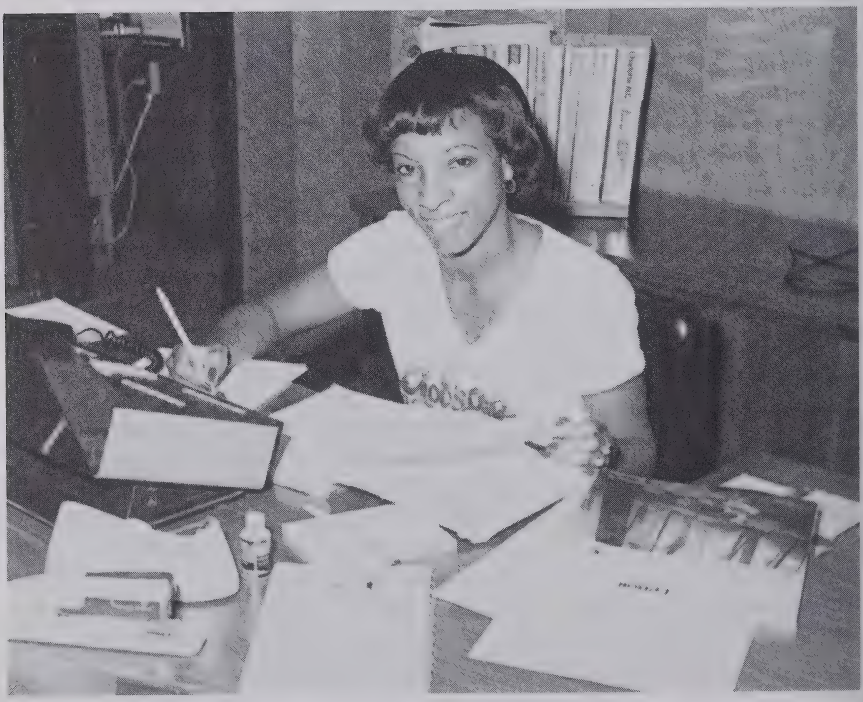
May 27, 28, 29	Exams
Thursday, May 29	Spring Quarter Ends

SUMMER QUARTER

Monday, June 2	Registration, Caldwell Campus
Tuesday, June 3	Registration, Watauga Campus
Wednesday, June 5	Classes Begin
June 4, 5, 6	Late Registration
Friday, June 27	Independence Day Holidays Begin After Last Class
Monday, July 7	Classes Resume
August 4-8	Early Registration for Fall Quarter
August 15, 18, 19	Exams
Tuesday, August 19	Summer Quarter Ends
Friday, August 22	Graduation

MINI-SESSIONS

I. June 9-27
II. July 7-25
III. July 28 - August 15



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GENERAL INFORMATION

HISTORY OF THE COLLEGE

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

The 1979 General Assembly rewrote the Community College Act and authorized a new board for community colleges, effective January 1, 1981.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell County approved the college through a bond vote of $600,000 for the purchase of a site and construction of facilities and up to 5 cents tax authorization for operating the college. Final approved by the State Board of Education followed on April 2, 1964.

The first president was selected that fall and began work in November, 1964. A permanent site was selected for the institute in January, 1965. Selection of an architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970, Caldwell Technical Institute was authorized by the North Carolina General Assembly through the State Board of Education to offer college transfer courses. Subsequently, Caldwell Technical Institute changed its name to Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon on December 7, 1971. The local money was to match a federal grant of $799,306 under the Appalachian Region Act. This referendum was passed by more than a 2 to 1 majority. In 1973 the institution received $500,000 of state construction funds from an appropriation by the North Carolina General Assembly. These funds enabled the trustees to increase the size of the college by about 77,000 square feet. The new buildings were occupied during the 1974-75 school year.

In 1979 the Caldwell County Commissioners authorized an expenditure of $600,000 to match a proposed Appalachian Regional Grant of $400,000 to construct additional facilities. These new facilities were occupied in August 1982. The additional 19,000 square feet makes a total of 154,000 square feet of building space at the institution.

In September, 1973, Caldwell Community College and Technical Institute, Watauga Division was established to provide limited credit and more extensive noncredit offerings to the citizens of Watauga County in various locations throughout the county. Appalachian State University permits CCC & TI Watauga Division students to use the university's library facilities.

The institution has grown at a steady rate since its beginning in 1964. For the 1984-85 year, the college was funded for 1570 full-time equivalent (FTE) students in one-year diploma and two-year degree programs and 888 FTE in continuing education programs for a total full-time equivalent enrollment of 2458. To teach these students and provide the required support and other services, the institution employs some 140 full-time persons and approximately 600 part-time persons each year.

Dr. H. Edwin Beam, first president of Caldwell Community College and Technical Institute, retired June 30, 1984. Dr. Eric B. McKeithan was appointed July 1, 1984 to begin his term as second president.

PURPOSE AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any adult desiring to learn. All students are offered the opportunity and are encouraged to develop their intellectual, social, occupational, civic, cultural, and physical potential. The college is committed to providing quality, inexpensive, continuing education opportunities to meet the needs of adults at facilities located within commuting distance.

In keeping with the general purpose of Caldwell Community College and Technical Institute, the board of trustees, the staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide the opportunity for individuals to complete elementary or secondary school by offering adult basic education and high school equivalency programs.

Provide a variety of one-year vocational, two-year technical, and two-year college transfer programs that reflect the changing needs of business, industry, and professional and public services.

Provide general interest courses that meet adult education and community service needs.

Provide guidance and counseling services to assist students in developing an understanding of themselves.

Provide cultural programs and educational services for community enrichment.

Provide assistance and information to stimulate interest in education throughout the community.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

The Watauga instruction facility and administrative offices are located at Highway 421 W. and 105 By-Pass in Boone, North Carolina.

ACCREDITATION

Caldwell Community College and Technical Institute was regionally accredited by the Southern Association of Colleges and Schools in December, 1969. In December, 1975, our institution's accreditation was reaffirmed and we began a ten-year self-study report in the fall of 1984, with anticipation of reaffirmation of accreditation in 1986.

Diploma, associate in applied science, and associate in arts or science programs have been approved by the North Carolina Department of Community Colleges and the State Board of Community Colleges.

The radiologic technology program is accredited by the Council on Allied Health Education and Accreditation of the American Medical Association. The nursing program is approved by the North Carolina State Board of Nursing. The nuclear medicine program is accredited by the Joint Review Committee of Education in Nuclear Medicine Technology of the Council on Allied Health Education and Accreditation. The occupational therapy assistant program is approved by the American Occupational Therapy Association.

ADMISSIONS

GENERAL ADMISSIONS REQUIREMENTS

Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which that individual wishes to enroll. These requirements vary with the areas of study offered by the college.

Students wishing to enroll in a curriculum program at Caldwell Community College and Technical Institute should contact the student development office for application forms, interview appointments, and dates for placement testing.

All technical and college transfer programs require high school graduation or the equivalent. Students enrolled in the vocational programs must be 18 years of age or high school graduates.

Applicants to Caldwell Community College and Technical Institute should:

1. Secure application forms and make application for admission.
2. Request that a transcript of past high school and college work be submitted to the student development office.
3. Complete the required placement tests for specific programs.
4. Have an interview with a member of the student development office or faculty advisor.

SPECIAL ADMISSIONS POLICY FOR PROGRAMS WITH LIMITED ENROLLMENT

Biomedical Electronic Technology

Application
High school transcript
High school equivalency or GED
Placement tests
Interview with program coordinator

Cosmetology

Application
High school transcript
High school equivalency or GED
Placement tests

Medical Sonography Technology

- Application
- High school transcript
- High school equivalency or GED
- Placement tests
- Transcripts of any college work
- Hospital visit arranged by admissions counselor
- Two letters of recommendation
- Satisfactory interview with admissions committee
- Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance

Nuclear Medicine Technology

- Application
- High school transcript
- High school equivalency or GED
- Transcript of any college work
- Placement tests
- Hospital visit arranged by admissions counselor
- Two letters of recommendation
- Satisfactory interview with program coordinator
- Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance

Nursing, Level I (LPN)

- Application
- Placement tests
- High school transcript
- High school equivalency or GED
- Transcript of any college work
- Two letters of recommendation
- Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance

Nursing, Level II (RN)

- Application
- Placement tests
- High school transcript
- High school equivalency or GED
- Transcript of any college work
- Transcript from nursing school
- Two letters of recommendation
- Hold valid North Carolina LPN license no later than end of first quarter of Level II
- Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance
- Cumulative GPA of 2.50 or better on nursing and science courses from previous nursing program

Occupational Therapy Assistant

Application
High school transcript
High school equivalency or GED
Transcript of any college work
Placement tests
Hospital visit arranged by admissions counselor
Two letters of recommendation
Satisfactory interview with program coordinator
Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance

Radiographic Technology

Application
High school transcript
High school equivalency or GED
Placement tests
Transcripts of any college work
Hospital visit arranged by admissions counselor
Two letters of recommendation
Satisfactory interview with admissions committee
Completed Caldwell Community College and Technical Institute Allied Health medical examination form after acceptance

PLACEMENT INVENTORIES

To assure that curriculum students are placed in the proper courses, placement inventories are given to students as part of admissions procedures. For the one-year occupational degree programs, the reading placement inventory is required. For the two-year college transfer and occupational degree programs, the English, math, and reading placement inventories are required. Before students can enter an Allied Health program, they must have satisfactory placement scores in reading, math, and English.

PROVISIONAL STUDENTS

A student applying too late to complete pre-entrance requirements may be permitted to enter the college as a provisional student. Provisional students must complete all requirements within the first quarter of attendance.

SPECIAL CREDIT STUDENTS

A special credit student is one who is taking one or more curriculum credit courses but who is not enrolled in a specific program. Special credit students may register for courses by filling out applications and completing the registration process. After twelve quarter hours of credit are completed, the special credit student must take the placement inventories and have transcripts sent to the Student Development office. Special credit students are encouraged to enter programs at Caldwell Community College and Technical Institute provided that admission requirements to the programs are met.

FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U.S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-1562.

Foreign students must meet the same admission requirements as all other students. Included with the application should be a transcript from an authorized school or university. If this document is not in English, it should be translated and certified before being sent to CCC & TI. The Test of English as a Foreign Language (TOEFL), with a minimum acceptable score of 500, is required of all applicants as evidence of adequate proficiency in English.

VISITING STUDENTS

Students who are working toward a degree in another institution may register for courses at Caldwell Community College and Technical Institute. The student must complete the application forms and submit a letter from the institution from which that students expects to graduate indicating student status. It is the responsibility of the visiting student to request that transcript(s) of work taken at CCC & TI be sent to the "home" institution.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges, or universities. After admission, the prospective student's record will be evaluated by the registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desires advanced standing. Courses in which a student made grades of "D" may be transferred to Caldwell Community College and Technical Institute if the overall average of the courses transferred is 2.0 or better.

POLICY ON ADMISSION OF HIGH SCHOOL STUDENTS

An applicant for admission to a course or courses at Caldwell Community College and Technical Institute who is neither a high school graduate, nor high school dropout, nor eighteen years of age, but who is concurrently registered (or on vacation) as a student in one of the two upper grades of high school, may be admitted, subject to the discretion of the college administration and taking into consideration the constraints of facilities and funds available; provided that such applicant's admission to each course shall require written approval or recommendation of the superintendent or other designated executive or administrative officer having responsibility in or over the high school in which the student is enrolled while attending Caldwell Community College and Technical Institute.

An applicant not attending high school who is between the ages of sixteen and eighteen years and who has special educational needs may be admitted to appropriate courses or programs provided:

(1) That applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the quarter; and

(2) That the application is supported by a notarized petition of the applicant's parent, legal guardian, or other person or agency having legal custody and control, which petition certifies the place of residence and date of birth of the applicant, the parental or other appropriate legal relationship of the petitioner to the applicant, and the date on which the applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

(3) That such admission will not pre-empt institution facilities and staff to such an extent as to render the institution unable to admit all applicants who have graduated from high school or who are eighteen years of age or older.

SUSPENSION, DISMISSAL, AND READMISSION

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Readmission of dismissed students at a subsequent session will be at the discretion of the college. Students should refer to the student handbook for details on disciplinary procedures and regulations pertaining to suspension and expulsion.

A student dismissed from the college for any reason can petition the admissions committee to consider his/her readmission after one quarter's absence following dismissal.

Veterans should see the section on Academic Probation for information concerning the reinstatement of benefits.

ACADEMIC STANDARDS

GRADING SYSTEM

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter should schedule a conference with the instructor and/or their faculty advisor.

Students enrolled in curriculum program courses will be graded by the grade system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	Letter Grade	Grade Point Equivalent
93-100	A — Excellent	4 quality points each quarter hour
85-92	B — Good	3 quality points each quarter hour
77-84	C — Average	2 quality points each quarter hour
70-76	D — Below Average	1 quality point each quarter hour
Below 70	F — Unsatisfactory	0 quality points each quarter hour

I — Indicates failure to complete certain course requirements because of extenuating circumstances.
W — Student withdrew from the course.
Y — Audit — Indicates no grade or credit given.
P — Pass — No quality points given.
CR — Credit by examination — No quality points given.
CS — Continued study of course objectives. The student must re-enroll and continue study in the course to receive credit.
NG — No grade available.

GRADES OF “I” (INCOMPLETE)

An “I” grade in a course indicates the student is making satisfactory progress at the end of the quarter but, due to extenuating circumstances, is unable to complete the course requirements. When an “incomplete” is given, a contract outlining the work to be completed must be signed by the instructor, appropriate department chairperson, and the student. A copy of the contract will be submitted to the registrar’s office with the end-of-quarter grades. All work must be completed by the end ot the following quarter. At that time, the“incomplete” must be changed to a letter grade by the instructor.

Veterans should check with the veterans coordinator in the Student Development Office upon receiving an “I” grade.

WITHDRAWING FROM COURSES AND/OR SCHOOL

Students who withdraw from a class or from the college should first consult with their academic advisor and then contact the registrar in the Student Development Office.

A student may withdraw from a course and receive a grade of “W” up until fifty percent of the class contact hours have elapsed. After the midpoint, all drops will be initiated by the instructor who may assign a grade of “W” or “F” at the end of the quarter.

Veterans should check with the veterans coordinator in the Student Development Office for specific VA regulations concerning withdrawals and class repeats.

COURSES REPEATED FOR CREDIT

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the student’s grade point average.

AUDITING

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the “audit” to credit.

Any student who wishes to audit a physical education course must have the department chairperson’s approval.

CREDIT BY EXAMINATION

Students enrolled at Caldwell Community College and Technical Institute who are qualified to accelerate their studies because of their demonstrated abilities may receive credit by examination for some of the curriculum courses. The student wishing to receive credit by examination must petition the department head under whom the course is offered. If the department head deems the course suitable for credit by examination, the student may receive permission to take the examination developed by the department head and appropriate instructors. The department head will decide the appropriate score demonstrating competence in the course. Regular course fees must be paid by the student before credit can be given.

If the examination is passed, the student will earn credit hours toward graduation but no grade points. Credit by examination (CR) will be indicated on the student's transcript. If the examination is not passed, no notation will be made on the transcript.

Credit by examination may not be used to repeat a course nor may the student repeat the examination. No more than one-third of the hours required for a degree or diploma may be earned by examination.

Caldwell Community College and Technical Institute offers college credit for the subject area examinations included in the College Level Examination Program (CLEP). Credit will be granted towards a degree following a student's registration and enrollment.

CREDIT FOR PRIOR LEARNING

Credit may be given in recognition of the competencies that students have acquired through occupational experiences, independent studies, community services or other life experiences which are equivalent to courses listed in the school catalog. Information regarding Credit for Prior Learning (CPL) may be obtained from the Student Development Office.

UNSCHEDULED COURSES

Eligible students may apply to take a course that is listed in the school catalog but is not being offered during the designated quarter. Students should apply through the Student Development Office. Permission must be obtained from the department chairperson responsible for the course.

INDEPENDENT STUDY, 198 COURSE

Eligible students may wish to pursue the study of a particular subject which is not listed in the school catalog. Under this program, the student designs and pursues a project with an instructor serving as consultant. For information on independent study, the student should consult with the student development office. Permission must be obtained from the chairperson of the department in which the study will be done.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

FACULTY ADVISOR SYSTEM

The faculty advisor program is a cooperative effort of the faculty and the Student Development Office. At the time of enrollment, each student is assigned an advisor who will assist that student in planning programs and selecting courses so appropriate progress will be realized. Counselors serve as advisors to special credit students. Advisor/advisee conferences are held at least once each quarter. Specific dates for these conferences, along with additional instructions, are listed in the current student handbook.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the registrar, advisor, and department chairperson.

ACADEMIC PROBATION

Caldwell Community College and Technical Institute considers the following accumulative grade point average for total hours attempted as evidence of satisfactory academic progress at the college:

Quarter Hours Attempted	Associate Degree Grade Points	Diploma Grade Points
6-12	1.00	1.00
13-24	1.25	1.25
25-36	1.50	1.50
37-48	1.75	1.75
49-60	1.85	2.00
61-72	1.90	
73-84	1.95	
85-Graduation	2.00	

All program students (those enrolled as Special Credit are excluded) failing to maintain the average above will be placed on academic probation for one quarter. The Student Development Office will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisors. The advisor will explore various options with the student, including the following:

a. reduction of course load
b. referral to the Student Development Office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program

f. enrolling in additional preparatory courses
g. reduction of nonscholastic activities

Any curricular student on probation will remain on probation until that student's cumulative GPA reaches the standards of progress listed above.

A person receiving VA benefits will not be recertified until he/she has met the satisfactory academic progress requirements.

ADVISED STATUS

If a student's grade point average for the **quarter just completed** falls below a certain level, he/she will be considered to be on advised status and will be notified by letter. This is not academic probation and is not based on the accumulated grade point average. Appropriate action, mentioned above, should be taken by the student and the academic advisor to prevent the student's being placed on probation in the future.

The chart above will be used to determine if the quarter grade average-shown as "current GPA" on the grade report - is at or above the minimum level for the number of attempted hours.

A student could receive this notice and a probation notice at the same time (Special Credit students are excluded).

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the advisors. Students may enroll for a maximum load depending upon their capabilities as determined by their advisors. A normal course load is outlined by departments in this catalog.

STUDENT TUTORIAL ASSISTANCE

Special assistance is available for students in all areas of study at the college. Tutors may be assigned to students at no cost to the student. To request a tutor, students should contact the course instructor.

Instructors are also available for conferences at regularly scheduled office hours or by appointment. It is the responsibility of the student to seek extra help when needed.

DEGREE/DIPLOMA REQUIREMENTS

All students should refer to the college or to the program check sheets for information about the courses required for graduation in the various areas of study. By conferring with the advisors when questions arise and by following the check sheets, students will tend to be more accurate in the proper selection of courses. Check sheets are recommended for all students and are required for all veterans.

REQUIREMENTS FOR GRADUATION

A student is eligible for graduation when the following requirements have been completed:

1. The student must file an application for a degree/diploma during the registration period of the last quarter the student is in attendance.
2. All the requirements for a diploma/degree in a particular program must be satisfactorily completed.
3. The student must have a quality point average of 2.0.
4. The student must take care of all financial obligations to Caldwell Community College and Technical Institute.

Graduation exercises will be held at the end of the summer quarter. All candidates for graduation are expected to be in attendance.

RESIDENCY REQUIREMENTS FOR GRADUATION

Students transferring from other schools to Caldwell Community College and Technical Institute must complete twenty-five percent of their course requirements in a particular program at CCC & TI in order to qualify for graduation in that program.

HONORS

President's Honor List—At the end of each quarter, a President's Honor List will be published to honor those students who: (1) are enrolled in a curriculum program; (2) have completed a minimum of 12 credit hours (courses with "CR" or "P" are not applicable); (3) have maintained an "A" average in all courses, and (4) have no grades of "I".

Dean's Honor List—At the end of each quarter, an academic honor list will be published of all students who:

(1) are enrolled in a curriculum program; (2) have completed a minimum of 12 credit hours (courses with "CR" or "P" are not applicable); (3) have a grade point average of 3.5 or better, and (4) have no grades of "I".

Honor's List—At the end of each quarter, an academic honor list will be published to honor those students who:

(1) are enrolled in a curriculum program; (2) have completed 8 to 11 credit hours (courses with "CR" or "P" are not applicable); (3) have a grade point average of 3.5 or better, and (4) have no grades of "I".

Graduation With Honors—A graduating student who has earned an overall quality point average of 3.5 or better during studies at Caldwell Community College and Technical Institute will receive the diploma or degree "with honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed and all tuition and fees paid.

ATTENDANCE POLICY

At the request of the faculty senate the institutional attendance policy has been modified. The new statement follows:

Students are expected to attend every class meeting. However, it is recognized that occasional absences may be necessary. A student is responsible for any work missed. At a minimum, a student will be dropped from class membership after the fifth consecutive absence. Beyond this, each department will formulate its own attendance policies in accordance with the varying requirements of the different curricula. These requirements will be published in the student handbook and/or announced at the beginning of each course.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students provided students request transcripts in writing and make satisfactory financial arrangements for all amounts due the college.

CONFIDENTIALITY OF STUDENT RECORDS

Caldwell Community College and Technical Institute adheres to the Family Educational Rights and Privacy Act of 1974 which outlines the rights and privacies afforded each student. Exceptions to this practice of privacy is the releasing of information defined by law as "directory information." Unless a student gives written notice to the contrary, the following information will be made public information:

(1) student's name (2) date of birth (3) address (4) phone number (5) program of study (6) dates of attendance (7) degree/diploma received. A more detailed description of students' rights concerning accessing records is found in the student handbook.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

TUITION AND FEES

POLICIES REGARDING STUDENT EXPENSES

All tuition and required fees are due and payable at the time of the student's registration. The controller or a delegated representative shall have the authority to permit deferred payments of tuition and fees in situations where it is determined that a student is undergoing emergency financial conditions. The student must first see the financial aid officer who will make recommendations to the controller.

All checks and money orders must be made payable to Caldwell Community College and Technical Institute. No student will be allowed to graduate, to receive grades or transcripts, or to register for a new quarter if said student has an unpaid balance due from any previous quarter. Exceptions will be made only if such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

In the event a student writes a check with insufficient funds to the college, the college will no longer accept checks from that individual.

TUITION

Caldwell Community College and Technical Institute offers an educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Community Colleges and are subject to change without notice. Current basic fees to be paid by students upon enrollment are as follows:

In-state students	
12 credit hours or more (full-time)	$51.00
Part-time students per quarter hour	$ 4.25
Out-of-state students	
12 credit hours or more (full-time)	$255.00
Part-time students per quarter hour	$ 21.25
Late Registration Fee	$ 5.00

Tuition for Students Enrolled in More Than One Institution

Where a student desires to enroll for the same quarter at two or more institutions of the community college system, the total amount of tuition shall not exceed the maximum tuition. When enrolled at the second institution, the student must produce his/her validated registration receipt in order to waive any payment of tuition. Activity fees will be charged. It is the student's responsibility to see that transcripts are sent to the "home" institution at the completion of the quarter.

Tuition for Older Citizens

North Carolina residents sixty-five years of age or older shall be exempt from the payment of curriculum tuition and activity fees.

Tuition for Inmates

Prison or correctional unit inmates will be exempt from the payment of tuition or activity fees.

OTHER CHARGES

Student Activity Fees

Curriculum students will be charged $1 per course activity fee up to a maximum of $5 per quarter. This fee is not refundable unless there is an institutional error.

Accident Insurance

All CCC & TI students and employees must sign a waiver prepared by the college which states that the student or employee will assume personal responsibility for all medical costs incurred in case of accident or emergency while attending school or work, including ambulance and emergency room costs. After signing the waiver, the student or employee is given the opportunity to enroll in a low-cost accident insurance program available through the college.

The policy offered will cover enrollees while traveling directly to the college; during hours of college operation; while traveling directly from the college to home; and while participating in college-sponsored activities.

Insurance coverage is from September 1 through August 31 with no refunds of unused coverage. Students who begin classes in the winter quarter or spring quarter must still pay the full amount. The cost of the policy is $6 per year.

Malpractice Insurance

Special malpractice insurance is required for nursing, radiology, medical sonography, nuclear medicine, occupational therapy assistant, and biomedical electronics technology students. Coverage charges may be prorated. This fee is not refundable.

Books and Supplies

Students are required to buy the necessary textbooks and supplies prescribed in the curriculum area they are entering. These vary according to different courses taken by the students. An average expenditure of $75 can be expected by the new fall quarter students for books. Normal school supplies are sold during the regular bookstore hours.

Graduation Fees

A graduation fee of $15, subject to change, for a diploma/degree is payable at the beginning of the quarter in which the student completes his/her program. This fee is not refundable.

Late Registration Fee

A late registration fee of $5 will be assessed any student registering after scheduled registration days. The late registration fee is not refundable unless there is an institutional error.

TUITION REFUND/CREDIT POLICY

A student who withdraws from the college may receive a two-thirds tuition refund provided:

1. The student withdraws within 10 calendar days from the first day of classes as published in the school calendar.
2. The college judges the withdrawal as unavoidable.
3. The tuition is greater than $5.00.

A student who withdraws from the college may receive full credit for unrefunded tuition and fees provided:

1. The student withdraws within 10 calendar days from the first day of classes as published in the school calendar.

2. The college judges the withdrawal as unavoidable.
3. The student re-enrolls during any of the next 4 calendar quarters.
4. The student requests in writing tuition credit at the registrar's office at the time of withdrawal.

If a course or curriculum fails to materialize, all the student's tuition shall be refunded.

FEES NOT REFUNDABLE (Unless Institutional Error):
Insurance payment
Activity fee
Cap and gown deposit
Special course fee
Graduation fee
Ring deposit
Invitation and calling card cost

Only the registrar will be authorized to recommend a tuition refund.

ACCOUNTS

No transcripts, certificates, diplomas, or degrees will be issued, and students will not be permitted to complete registration until accounts are satisfactory to the business office, financial aid office, and the learning resource center.

RESIDENCE STATUS FOR TUITION PAYMENT

General

The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained a domicile (legal residence) in North Carolina for at least the twelve months preceding the date of first enrollment or reenrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification.

Minors

A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment in an institution of higher education in this state is that of the parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

Adults

An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a nonstudent is required to regain in-state status for tuition payment purposes.

Married Students

The legal residence of either husband or wife may be used for residence purposes to the advantage of each member of the family. Married couples should check with the residence classification officer at the college.

Military Personnel

While living in this state and serving active military duty, members of the Armed Forces are eligible for the in-state tuition rate. Spouses and dependent relatives living with the service person are also eligible for the in-state tuition rate.

North Carolina residents serving in the Armed Forces outside of North Carolina will not lose in-state resident status.

Aliens

Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

Property and Taxes

Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status

The residence status of any student is determined as of the time of the student's first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a nonresident for at least twelve consecutive months and

(b) In the case of a resident who abandons the legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

Responsibility of Students

Any student or prospective student in doubt concerning residence status must contact the Director of Admissions/Records. If the student becomes eligible for a change in classification, he/she must immediately inform the Student Development Office of the circumstances in writing. If an out-of-state student claims North Carolina residency, he/she may be liable for all out-of-state tuition due the college.

SPECIAL PROGRAMS

PRIME TIME: PERSONAL GROWTH PROGRAM FOR WOMEN

When there is sufficient interest, the college will offer a program known as PRIME TIME during fall quarter for the mature woman who wishes to return to school for self-improvement or for career training.

Three general courses will be scheduled between the hours of 10:00 a.m. and 2:00 p.m. on Mondays, Wednesdays, and Fridays. One of the courses will deal with life planning skills.

All students will remain together for three courses which cover an eleven-week period and end near the Thanksgiving holidays.

Prime Time is being offered as a one quarter introduction to the opportunities at the college and is scheduled so as to allow the woman who has school-aged children to come to class after the public school day begins and return home before it ends. Attending class only three days per week instead of five provides the new student a gradual entry into a new time schedule.

Persons who complete the Prime Time block of courses will receive eight hours of college credit which can be applied to many of the technical and college transfer curricula at the college.

After the program is completed, the student who wishes to return the following quarter has the option of choosing one of the regular career programs or of selecting random courses which might interest her.

Students who enroll must be high school graduates or hold the high school equivalency diploma. A minimum enrollment of twelve students will be necessary to ensure that the program will be held.

Although Prime Time is especially for women, men will be welcomed in the program.

VETERANS

Curriculum courses offered by the institution are approved for veterans' benefits. Any veteran or dependent who is eligible under provisions of Chapters 34 and 35, Title 38 and Public Law 894 and who has completed the admissions requirements for the school and has a transcript(s) of previous work on file can apply for educational assistance. Such application can be made in the office of the veterans coordinator and must include a copy of the veteran's discharge (DD-214). At registration, both veterans and dependents under Chapters 34, 35 are responsible directly to the school for payment of all costs. ALL WHO RECEIVE VETERANS FINANCIAL ASSISTANCE are further responsible for becoming familiar with specific VA regulations concerning monthly attendance reports, satisfactory conduct and academic progress requirements, and the use of the curriculum check sheet to ensure appropriate selection of courses. This information is available from the coordinator.

Children of disabled or deceased veterans may be eligible to receive financial assistance for tuition and fees. For information regarding eligibility, students should contact the local veterans service officer.

STANDARDS OF PROGRESS, ATTENDANCE, AND CONDUCT FOR VETERANS AND OTHER ELIGIBLE PERSONS CERTIFIED TO THE VETERANS ADMINISTRATION FOR EDUCATIONAL PAYMENTS UNDER PUBLIC LAW 93-508.

(Adapted for the catalog; copies of original document are available from veterans coordinator)

1. Determination of academic progress: All students enrolled in a credit program will be graded by the following letter-grade system and assigned a grade point equivalent.

Numerical Equivalent	Letter Grade	Grade Point Average
93-100	A-Excellent	4.00
85-92	B-Good	3.00
77-84	C-Average	2.00
70-76	D-Below Average	1.00
Below 70	F-Unsatisfactory	0

I—Indicates failure to complete certain course requirements
W—Student withdrew from course

A veteran may not a second time be certified for pay purposes for any regular credit course on which there is a grade of "I". The "I" must be completed within the following thirty-day-calendar period unless other arrangements are made with the coordinator. Work not completed within the time limit will result in an overpayment for the course involved. If a make-up grade is received within a one-year period, the VA will be notified and the overpayment may be removed. There is one exception to the preceding rule: the veteran will be permitted to repeat (one time only) a remedial course on which he/she has made an "I". Coordinator will have additional information.

The following accumulated grade point average for total hours attempted is considered evidence of satisfactory academic progress:

Quarter Hours Attempted	Attempted Degree Grade Points	Diploma Grade Points
6-12	1.00	1.00
13-24	1.25	1.25
25-36	1.50	1.50
37-48	1.75	1.75
49-60	1.85	2.00
61-72	1.90	
73-84	1.95	
85-Graduation	2.00	

Each veteran's grades are checked each quarter. Any who fail to maintain the above averages will be placed on academic probation for the next quarter of attendance and will be notified by mail of the probation. Should a notice not reach a veteran, this in no way cancels the probation period. Once grades are out, each student should be aware of his/her academic progress or lack of it.

Veterans who make an "I" grade on 100% of their courses in a given quarter or withdraw from all courses will be considered in academic difficulty and will be placed on probation for the next quarter of attendance.

Veterans with satisfactory progress who show a marked decline in academic achievement in a following quarter will be placed on probation for the next quarter without regard to the overall GPA. The higher average of previous work will not be computed with the low average—the quarter of marked decline will stand alone.

At the end of the one quarter probation period, all who then meet the satisfactory progress test will be removed from probation. Those who do not meet the requirements will be terminated, for pay purposes, to the regional VA office; he/she may be reinstated for benefits (1) after appropriate academic progress is made and/or (2) after VA counseling.

At the end of the quarter for which benefits have been terminated, the coordinator will review the academic progress for that quarter. Should the accumulated GPA meet requirements at the point (see chart), the veteran will be certified retroactively for the quarter just completed.

The official copy of quarter grades for veterans and nonveterans is kept in the registrar's office; a second copy is mailed to each student and a third copy is provided to the veterans coordinator for the purpose of determining progress.

Neither probation nor termination of educational benefits affects the veteran's eligibility to continue enrollment at CCC & TI.

2. Attendance: The school operates within the framework of the NC Department of Community Colleges' attendance policy; therefore, it makes no provision for free "cuts." Each instructor decides when the excessive absence point has been reached and provides the registrar with the names of those students involved. Instructors can initiate withdrawal forms for any student who, in their determination, has jeopardized his/her chance for passing the course because of poor attendance.

All veterans are required to file instructor-signed monthly attendance sheets showing absences. The sheet must be filed with the coordinator no later than the 30th calendar day of the month or, if the quarter ends in the middle of a month, no later than the last day of the quarter.

All absences of veterans enrolled in either vocational or high school equivalency programs are reported to the VA. ("Absences" include both days missed for personal reasons as well as those days missed because the institution is closed for quarter breaks, etc. The coordinator has a list of the nonoperating days that are considered as absences.)

Veterans will be terminated to the regional VA office by the coordinator for the following attendance-related reasons: (1) Excessive absences resulting in instructor initiated withdrawal, (2) veteran's official withdrawal, (3) registrar's report that veteran is no longer attending or (4) veteran's failure to provide the attendance sheet by date stated above.

Dropping classes after the quarter begins will often result in either a revision of certification or termination of benefits. Any charge in hours MUST be reported to both the registrar and the coordinator.

3. Determination of appropriate courses: Only courses listed in the catalog under the specific curriculum can be certified to the VA. Each veteran must file a check sheet with the coordinator who lists the quarter the course is taken and later adds the grade received. All veterans must check with the coordinator at each registration so that certifications, as well as the check sheets, can be updated.
4. Conduct: The same conduct regulations apply to all students. All behavior which is prohibited by federal, state, and local laws is prohibited on campus. Violations could result in dismissal of any student from school and in termination of benefits for veterans. Reinstatement of benefits would depend upon (1) readmittance of persons to the school, and (2) recommendation of the VA after counseling.
5. Advancement lab requirements: When a veteran enrolls in the high school equivalency program, he/she is informed (1) that the coordinator must have on file a transcript of previous work prior to certification, (2) that a weekly progress review will be made and (3) that, based upon placement inventories, grade completed in public school, time elapsed since last school, etc., he/she should complete the work in a certain period of time. At the first sign of unsatisfactory progress, the veteran is scheduled for a conference with the lab advisor. Should unsatisfactory progress continue after several such conferences, the advisor will notify the coordinator who will terminate benefits until such time as a sufficient percent of acceptable work is completed to put the veteran back on the time schedule. The probation period is considered to be the time between the first unsatisfactory progress conference and the time the coordinator is notified.

Unsatisfactory attendance is determined by the lab advisor. Written notice, along with last date of attendance, is sent to the coordinator who terminates the veteran to the VA.

All veterans attending the advancement lab are advised to report for the hours scheduled on their certifications or run the risk of being counted absent even though they may be making up time at other hours. The coordinator will make a weekly attendance check.

CCC & TI is currently approved for a maximum of 700 hours for the completion of the high school diploma. This does not guarantee that all persons will be allowed the full 700 hours. What it does mean is that each will have the length of time needed up to that number of hours.

Official institutional credit class schedules are published four times per year for the degree/diploma programs. The advancement lab schedule for the high school equivalency program remains constant: the lab is open Monday through Thursday, except for school holiday, from 8:00 a.m.-9:00 p.m. and on Friday from 8:00 a.m.-5:00 p.m. Persons wishing to enroll in the equivalency program may do so at any time.

NOTE: Veterans need to be aware that VA regulations are constantly being revised and expanded. The office of the veterans coordinator will attempt to keep all information current and will have updated material available for distribution.

FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face financial problems to apply for assistance through the Coordinator, Financial Aid. Financial assistance for educational costs may be available in the form of scholarships, grants, loans, and work programs. Within the limited funds available for these purposes, every effort is made by the institution to help students who need monetary assistance.

Financial need is determined through analysis of a Family Financial Statement of the American College Testing Service prepared by the student and parents or guardian. Analysis of the family's financial situation indicates the family's ability to contribute toward educational expenses. Most financial aid is based on need rather than scholastic record. Financial need is the difference in the total educational expenses and what the family can afford to contribute.

There are three types of student financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships—awards that do not have to be repaid. Loans and work are self-help. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

APPLICATION PROCEDURE

Students who are entering Caldwell Community College and Technical Institute for the first time and are in need of financial aid are requested to follow this pattern of application procedure:

1. After application for admission has been initiated (see "Admissions"), write to the Coordinator, Financial Aid and outline needs for financial aid. Instructions for applying will be sent to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who desires to apply for financial assistance must file a Family Financial Statement from the American College Testing Service and must apply for a Pell Grant. These forms are available from the Coordinator, Financial Aid.
3. Report for a personal interview when designated.
4. After determination of the scholarship, loan, grant, or work-study award, the recipient will then be notified by letter.

TYPES OF AID AVAILABLE

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these must not exceed total need.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to that student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the Satisfactory Academic Progress Requirements as defined by this institution specifically for financial aid recipients. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility may be regained by re-establishing progress.

I. FEDERALLY SPONSORED PROGRAMS

Eligibility

To receive financial aid from these programs, a student must:

1. Be a U.S. citizen or an eligible non-citizen.
2. Be registered with Selective Service, if male at least 18 years old and born after December 31, 1959, and not a current member of the active armed forces.
3. Have financial need.
4. Be older than compulsory age of secondary school attendance.
5. Not already have a baccalaureate degree.
6. Must maintain satisfactory academic progress as defined for aid recipients.

Pell Grant

The Pell Grant program is designed to provide financial assistance to those who need it to attend post-high school educational institutions. The amount of the Pell Grant is determined on the basis of the student's and his/her family's financial resources.

The Pell Grant Award is a grant and, unlike a loan, does not have to be repaid. Every student who is applying for financial aid at Caldwell Community College and Technical Institute must apply for the Pell Grant. Applications may be obtained from high school or from the office of financial aid at this institution.

National Direct Student Loan Program

This is a federal loan through which students may borrow funds to complete their education if they are enrolled in a vocational program or if they have completed less than two years of a program leading to a bachelor's degree. Repayment begins six months after the student graduates or leaves school for other reasons. The loan recipient may be allowed up to ten years to pay back the loan. During the repayment period five percent interest will be charged on the unpaid balance of the loan principal. No payments are required for up to three years while a person serves in the Armed Forces, Peace Corps, or VISTA.

Supplemental Educational Opportunity Grant (SEOG) Program

This program of direct grants of financial aid is for students of exceptional financial need who without the grant would be unable to continue their education.

Guaranteed Student Loan Program

This program enables the student to borrow directly from a bank, credit union, savings and loan association, or other participating lender who is willing to make the educational loan. The loan is guaranteed by a state or private nonprofit agency or insured by the federal government.

To apply for the federal interest benefits, students must submit to the lender a recommendation from their school as to the amount they need to meet educational expenses. If they qualify for these benefits the federal government will pay the interest until repayment of the principal must begin. Payments begin six months after the student graduates or leaves school. Up to ten years may be allowed to complete repayment. A person does not have to make payments for up to three years while serving in the Armed Forces, Peace Corps, or VISTA, or for any time the person returns to full-time study.

North Carolina residents should apply through College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, NC 27605. Applications are available in the financial aid office.

College Work-Study Program

Caldwell Community College and Technical Institute participates in the college work-study program which provides on-campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer will take into account the student's (1) need for financial assistance; (2) class schedule; and (3) health and academic progress.

II. STATE SUPPORTED PROGRAMS

North Carolina State Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintaining academic progress may apply for the NCSSIG. Students must demonstrate "substantial financial need."

The NCSSIG program is administered in North Carolina by the College Foundation, Inc. Application procedures include the filing of a needs analysis system, either the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of the American College Testing Service. Details of the application process are available from high school guidance counselors and from the college financial aid officer. Application deadline is March 15 each year for the following academic year.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications, which are available in January of each year, may be obtained either from the high school guidance counselor or from the financial aid officer at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives an amount determined by the State Department of Public Instruction per academic year if the student is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina. After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the state Superintendent of Public Instruction in Raleigh on forms supplied by that office. The recipient will be obligated to teach in the North Carolina public schools or in a public resident institution for mentally retarded children for one year for each year he/she received aid. Applications may be obtained either from high school guidance counselors or from the financial aid officer at Caldwell Community College and Technical Institute.

North Carolina Student Loan Program for Health, Science, and Mathematics

Legal residents of North Carolina who are enrolled full-time in a degree program pursuing a career in health, mathematics, or science fields may apply for this loan through the Office of the State Budget in Raleigh. Applicants must be accepted or promoted in their respective fields, and must establish financial need. Further information is available from the financial aid officer.

III. LOCALLY SUPPORTED PROGRAMS

The institution currently offers several scholarships and loan programs. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what criteria are to be used in awarding them.

Scholarships and loans available as of the printing of this publication are:

Alpha Delta Kappa Memorial Scholarship

This academic scholarship was established by the Alpha Delta Kappa Sorority. The recipients are to be pre-teaching students who have completed at least 45 credit hours while maintaining an overall average of at least 3.0. Scholarship, leadership, and maturity will be considered. The award is made in the fall of the year. Applications are available from the financial aid officer.

C. W. Porter Scholarship

This memorial scholarship was established in 1971 by friends of the late C. W. "Soup" Porter. It has initial contributions from 27 individuals and businesses totaling over $5,000.00. Contributions to this fund are accepted at any time.

Rotary Club Nursing Scholarship/Loan

The Lenoir Rotary Club has designated that recipients of this fund be enrolled in the associate degree of nursing program. The recipient may renew for the second year of the program. Repayment may be made in cash or by working as a nurse in Caldwell County. One of the two scholarships has been named the Jane Carswell Scholarship to honor Dr. Carswell.

Blue Ridge Electric Membership Corporation Scholarship

This fund was established in September, 1973 to assist in meeting the educational needs of students.

Broyhill Foundation Scholarship

Broyhill Foundation contributes $1,000.00 each year to maintain a scholarship fund to be used to aid students in continuing their education.

M. L. DeVane Scholarship

The Ebony Kinship Club of CCC & TI established this fund in 1975 to aid a student enrolling full-time at this institution. It was further stipulated that the recipient have completed 45 credit hours while maintaining an overall average of 2.5 or higher.

Granite Savings and Loan Association Scholarship

The board of directors of the Association voted in 1974 to establish this scholarship fund. An award is to be made to a graduate of South Caldwell High School. The student selected must be enrolled or accepted for enrollment in either a vocational or technical program.

Caldwell Medical Society Auxiliary Scholarship

Established in 1975, this scholarship has been designated by the Caldwell Medical Society Auxiliary to aid a student enrolled in nursing training who would otherwise be unable to attend school.

Caldwell County Medical Society Student Aid Fund

In 1984, the Caldwell County Medical Society established a fund which provides scholarships in the health related programs.

Altrusa Club Scholarship

This fund was established by the Altrusa Club of Caldwell County in 1975 to aid students over 25 years of age who are residents of Caldwell County and who are returning to school to pursue career training.

Rufus C. Gwyn Memorial Scholarship Fund

Each year the faculty of the college awards a scholarship to a student who is graduating from CCC & TI and whose intentions are to further his/her education. The scholarship is paid to the institution where the student is enrolled. Nominations may be made by faculty, staff, community, and students

Those making nominations and the committee selecting the recipient of the scholarship will consider:

1. integrity, the nominee's wisdom, concern for others, and humility
2. desire to continue education
3. need
4. capability to succeed in the area in which the student is to enroll.

Emory C. McCall Scholarship

This memorial scholarship was established as a perpetual fund in 1976 by friends of the late Emory C. McCall. It has initial contributions from over 85 individuals and businesses totaling over $10,000.

Carl Prestwood Scholarship

The family and friends of the late Carl Prestwood established this memorial fund in 1976 to be used as scholarships for deserving students. Initial contributions totaled approximately $2500.

Marian Alma Coffey Memorial Scholarship

The family and friends of the late "Mac" Coffey, who was a student at CCC & TI in recreation leadership, established this memorial scholarship to be used for second-year students enrolled in the recreation leadership program.

Addie B. Flowers Scholarship Fund

Established in 1978 as a memorial to the late Ms. Flowers, this fund has been designated to aid students in Caldwell County in need of financial assistance.

Wilford Randolph McGowan Scholarship

Established in 1978 as a memorial to Randy McGowan by his friends and family, this fund is to be used for residents of Caldwell and contiguous counties. It is to be based on need and academic promise.

Harold Coffey Memorial Scholarship

The Coffey Foundation established this scholarship fund in 1978 as a memorial to Mr. Coffey. Its recipients are to be needy residents of Caldwell and contiguous counties. Preference is given to students in nursing and other medical programs.

Helen J. Hatley Achievement Award

The Board of Trustees of CCC & TI established this fund in 1984 to honor Helen Hatley, Controller Emeritus. The award is presented at graduation each year to a student who has completed one-half of the required hours in a specific technical or college transfer curriculum with a cumulative GPA of 3.50 or better. Other criteria include integrity, humility, concern, wisdom, dependability, desire to continue one's education at CCC & TI, and potential for employment or continuing education after graduation. Nominations are made by faculty and staff to a selection committee.

E. E. Stafford Scholarship

This fund was established in 1979 by the Lenoir Civitan Club to aid a needy Caldwell County native.

Vester Corpening Scholarship

Established in 1980 by the Ebony Kinship Club, this memorial fund will aid needy students from Caldwell County.

Robin Triplett Scholarship

The Triplett family has requested that this memorial scholarship be used to aid a needy, handicapped student.

Cade Shaver Memorial Scholarship

Established in 1980 by the Cade shaver Sunday School Class of the First Baptist Church, Hudson, N. C., the scholarship is to be used by a student majoring in religion, teaching, or human services.

Julia Alexander Memorial Scholarship

Established in 1981, this award is designated for a student in the secretarial science or business administration program who maintains a GPA of 2.5. This fund honors a past president of the college's NCAEOP chapter.

Myron L. Moore, Jr. Scholarship

The Lenoir Mirror Company established this fund in 1983 to assist needy students.

First Generation Scholarship Fund

Established in 1984 by the Board of Trustees of CCC & TI, this fund provides assistance to students who represent the first generation of their families to attend college.

Emergency Assistance Fund

This fund was established in 1982 by the Life Skills committee to aid students facing critical emergency situations. Assistance may not exceed $30 in any quarter, and may be returned as a gift to the fund or repaid by working on campus.

Any faculty or staff member may initiate action for a student by contacting any member of the Life Skills committee.

L. E. Shade Memorial Scholarship

Established in 1982 by friends of Mr. Shade, this scholarship will be used to aid deserving students in need of assistance to continue their education.

Caldwell Memorial Hospital Auxiliary, Inc. Nursing Scholarship Fund

The Auxiliary established this scholarship to aid deserving students enrolled in the nursing program. First preference will be given to employees of Caldwell Memorial Hospital.

Claudia S. Kincaid Achievement Award

The friends and coworkers of Claudia Kincaid, Dean Emeritus, Student Development of CCC & TI, established this fund in 1983. The award is presented at graduation each year to a student who has completed one-half of the required in a specific curriculum with a cumulative GPA of 3.50 or better. Other criteria include extracurricular involvement, concurrent employment while enrolled, and potential for success after graduation. Nominations are made by faculty and staff to a selection committee.

IV. FOUNDATIONS

Many students who enroll at Caldwell Community College and Technical Institute receive financial assistance from private foundations. Some of this assistance is in the form of gifts and scholarships. Other students are able to borrow funds from these foundations to continue their education.

Dr. C. L. Robbins Educational Fund

Students enrolling at Caldwell Community College and Technical Institute are eligible to apply for financial assistance through the Robbins Foundation.

Applications may be secured from the financial aid officer at Caldwell Community College and Technical Institute or from the Foundation.

College Foundation Loan

North Carolina residents may apply for a North Carolina Insured Student Loan through the College Foundation. Loans may not exceed the total cost of education less other financial aid received. The amount of the loan is determined by the Foundation after consideration of the school's recommendation. Some borrowers may be eligible for federal interest benefits. After graduation or upon withdrawal from school, the borrower then assumes the full nine percent interest on the balance of the loan.

V. OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

1. Veterans benefits
2. Social Security Agency
3. Vocational Rehabilitation Agency
4. Department of Social Services
5. Various other North Carolina agencies

STUDENT DEVELOPMENT

GENERAL PHILOSOPHY

The philosophy of student development reflects the stated mission, purpose, and philosophy of the institution, which is the total development of students. Student development takes an active role in providing opportunities for mutual problem solving, developing relevant experiences, and promoting a general atmosphere in which students may develop their full potential.

COUNSELING

Opportunities for counseling are made available to all students enrolled in the college. Information and counseling are available to assist students in various areas, such as admissions, course and program selection, financial aid, personal and social problems, career selection, job placement, study habits, college transfer, veterans' information, and human development courses.

ORIENTATION

New students are expected to participate in an orientation program designed to promote a more rapid adjustment to the institution. The orientation programs are held each quarter for new students.

HOUSING

The college does not have housing facilities and does not find housing for students. However, Student Development will furnish a list of apartments and housing available to the general public.

TRANSPORTATION

The college provides no transportation service for students. There are no buses or other forms of public transportation, so students must have their own forms of transportation and/or participate in car pools.

CAREER EDUCATION/JOB PLACEMENT/LIFE PLANNING

A comprehensive career development program is available to all students and to the community. Through the use of computer-assisted career guidance programs, audio-visual materials, workshops, seminars, classes, and individual and group counseling, students will be taught self-assessment skills, career exploration, decision-making, job seeking skills and job-keeping skills. Job placement information will be available for distribution to all students. Career counselors coordinate all activities in the career center which will be housed in the Life Skills Center under the direction of Student Development.

STUDENT/ALUMNI JOB PLACEMENT

The placement of students and alumni in jobs is a function of the Student Development Office. A career counselor seeks available job listings from local employers, and students and alumni are encouraged to register and confer with this office in their search for meaningful employment.

STUDENT CONDUCT AND RESPONSIBILITIES

It is expected that students will conduct themselves as responsible adults, thus obeying all federal, state, and local laws as well as specific college regulations. The board of trustees retains the right to pass certain regulations governing the conduct of students on campus and at college-sponsored events. Specific information regarding these regulations is found in the student handbook. Students may be dismissed whose conduct violates these laws or regulations or whose conduct is considered incompatible with the purposes of the college. THEREFORE, ALL STUDENTS ARE HEREBY GIVEN NOTICE TO EXAMINE THE STUDENT HANDBOOK PRIOR TO ADMISSION AND TO UNDERSTAND ITS CONTENTS. Copies of the handbook are available in the Student Development Office.

STUDENT GRIEVANCE PROCEDURES

Procedures have been established for students to follow when or if they feel they have been treated unjustly or in a discriminatory manner. Both informal and formal grievance procedures are described in the student handbook under the heading, "Grievance Procedures."

STUDENT ACTIVITIES AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION

The student government association is composed of all students who enroll in curriculum programs at the college. Officers and senators are elected each year to serve the student body in promoting various activities and opportunities for out-of-class learning, social contacts, entertainment, and self-governance. The elected officers and senators strive to promote the general welfare of the students in a democratic fashion.

A copy of the student government constitution may be found in the student handbook.

CLUBS AND ORGANIZATIONS

Various clubs and organizations have been developed by students at the college:

Departmental/Subject Related Clubs

- Auto Mechanics Club
- Cosmetology Club
- Pi Sigma Gamma (Nuclear Medicine)
- Sigma Tau Omega (Radiology)
- Student Nurses Association
  - Practical Nursing (SNA-PN)
  - Registered Nursing (SNA-RN)

General Interest Clubs

- Alpha-Omega
- Science/Astronomy Club
- Chess Club
- Circle K
- Ebony Kinship

Any group of students may create a new club by following the steps outlined in the student government constitution in the student handbook.

ATHLETICS

The college is a member of the National Junior College Athletic Association and the Western Tarheel Conference and participates in co-ed intercollegiate golf and tennis. The school colors are blue and white and the mascot is the Cavalier.

Students interested in any of these sports should contact the various athletic coaches in the faculty office area.

INTRAMURALS

Various intramural sports opportunities are available for students, faculty, and staff at the college. Volleyball, chess, tennis, ping pong, shuffleboard, badminton, basketball, pickleball, and frisbee football are among the intramural offerings during each year.

Students interested in participating should contact the intramural coordinator in E-121 and watch for announcements on the intramural bulletin board in the student lounge.

STUDENT ACTIVITIES

Personal and social development is as important a part of education as academic improvement, and the college is committed to providing various student activities on campus to encourage development in these areas. In order to finance these activities, a student activity fee of $1.00 per course (up to a maximum of $5) is charged each student. The fee is used to support such activities and organizations as the following: school newpaper; campus clubs; dances; cook-outs; picnics; intercollegiate athletics; intramurals; purchase and maintenance of the television set, pool tables, and related equipment; student government activities; scholarships; trophies; speakers; film series; a variety of cultural programs; skiing excursions; and a variety of miscellaneous activities. Students who wish to initiate new activities should contact the student government association office for assistance.

ALUMNI ASSOCIATION

The purpose of the Alumni Association is to advance the growth and development of CCC & TI; to promote personal, educational, and professional development of alumni; and to coordinate activities of alumni in order to further the welfare of CCC & TI.

All graduates who hold diplomas, certificates, or degrees, and non-graduates who have taken one or more credit or non-credit courses are eligible for membership in the association. Membership will also be open to any individual instructor, administrator, trustee or citizen who has rendered service to CCC & TI.

THE BROYHILL CENTER FOR LEARNING RESOURCES

The purpose of the Broyhill Center for Learning Resources is to support the established objectives of the total educational program through a collection of print and nonprint media and audiovisual equipment, orientation and references services, and audiovisual and reprographic production.

Students are encouraged to look upon the center as an extension of their classroom instruction. The center has study stations and resources to support study and provide for recreational reading, listening, and viewing. In addition, the center staff is always ready to be of assistance.

LIFE SKILLS CENTER

The Life Skills Center is located on the second floor of "G" building on the north end of the campus. It is open from 8 a.m. until 9 p.m., Monday through Thursday, and until 5 p.m. on Fridays.

The purpose of the Center is to improve the institution's effectiveness in working with beginning students, especially underprepared beginners, by interrelating selected facilities and student educational programs and services in a manner that optimizes these resources.

The Life Skills Center includes the following areas:

Adult Basic Education

Classes are offered for people who may need help learning basic speaking, reading and writing skills. Instruction is also provided in arithmetic, science, and social studies. Classes are offered free of charge, including all books and materials that have been especially prepared for adult learners. Persons can study at their own pace, with instructors available to assist in this pre-high school level program.

Advancement Laboratory

The Advancement Laboratory is a study center where persons can use self-teaching materials, including microcomputers, to:

- prepare for the high school diploma, G.E.D. examinations, and North Carolina Competency Test.
- upgrade skills in specific subject areas.

- overcome deficiencies in subjects needed for college entrance.
- study in areas of general interest.
- receive tutoring in selected courses:
- prepare for the S.A.T. and other standardized tests.

Instructors are available to assist persons who need help.

Adult High School Diploma

This program is designed to give adults who have less than a twelfth-grade education another opportunity to finish high school. Two options are offered: individual study in the advancement lab or a more structured approach through classes at the center and throughout the community. Persons may enroll and complete the programs at anytime although a high school graduation occurs only in August. Cost of registration and books are minimal. Graduation requirements include acceptable scores on four tests: American history and social studies, Science and biology, English and math. The North Carolina Competency Test is also required. The national GED program is also offered as an alternate to the adult high school program, and is available through individual study in the advancement lab or through a new telecommunications course being sponsored by the state community college system.

Guided Studies

Guided Studies is designed to help students who may not be academically well-prepared for college. If the English, math, and reading placement inventories given in the Testing Lab indicate a need for skills improvement, students enroll in guided studies courses. These courses are a regular part of the offerings of different departments and include basic English, math, reading, psychology, accounting, physical education and science. Guided studies advisors and instructors assist students through the first year of college.

Pre-Job

The Pre-Job, or Human Resources Development Program, helps prepare persons for employment. A cycle of five weeks focuses upon such things as

- identifying personal strengths
- learning about suitable careers to pursue
- developing self-confidence
- improving skills in problem solving, decision making, communications, and human relations
- learning how to correctly fill out a job application and prepare a resume.

The staff of Pre-Job helps in planning one's education or in finding a job, depending on one's personal goals. Follow-up counseling is provided for one year following completion of the program.

Reading Center

The Reading Center provides students an opportunity to develop reading skills needed to be successful in a curriculum program. As an open-door institution, CCC & TI enrolls students with varying degrees of reading abilities.

Through individualized instruction (working at one's own pace), students may work to improve both study skills and skills in vocabulary, reading comprehension, and reading speed.

Special Programs

This area provides an exciting open-ended opportunity for a variety of things, including art exhibits, book reviews and special noon hour discussions with topics ranging from study skills to self defense. A local industry made possible a fine art exhibit in the center. A student art exhibit has now also been displayed. A review of Toffler's *Third Wave* has been sponsored by the center and the college library. Sessions on how to take notes and study for an exam were conducted during fall quarter, and for the past two years a local attorney addressed students and faculty on what to do if you're arrested. Sex: Myths and Facts was the topic for a noon hour discussion led by the county health educator.

Examples of workshop, seminars, short courses and counseling available are:

- Career preparation
  - exploring career options
  - developing a resume
  - practicing interviewing skills
- Self-development
- Time management
- Study skills
- Coping techniques
- Interpersonal skills
- Money management
- Legal rights and responsibilities

Testing Lab

The Testing Lab has a variety of uses. All new students are referred to this area for placement inventories. These determine the appropriate beginning courses in English, math, and reading. Adult High School Diploma and G.E.D. tests are also administered by the Testing Lab.

Another purpose of the Testing Lab is as a center for students to take tests they might have missed in class or to take tests given by instructors on an individualized instructional basis.

Other types of services available in the Testing Lab are career preference surveys and a wide variety of tests to assist students in learning more about their personality, achievement, learning styles and vocational interests.

Tutoring

Tutoring is provided in both classroom situations and in the advancement lab. Available funds indicate the tutoring must be for vocational and technical students who are handicapped or disadvantaged. Special tutors are provided for students with language barriers, disabling physical limitations (i.e., stroke victim), and with hearing and sight limitations.

PROGRAMS OF STUDY

SPECIAL CODING SYSTEM

EF	Course will be offered EARLY FALL QUARTER.
F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered when sufficient students and instructor are available.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

			Class	Lab	Quarter Hour Credit
ENG	203	English Literature	3	0	3

In order to determine contact hours, add class hours plus lab hours.

OCCUPATIONAL DIPLOMA PROGRAMS

Diploma programs are designed to prepare persons for trade level occupations. Emphasis is given to the development of manipulative skills. Caldwell Community College and Technical Institute offers the following diploma programs:

AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
COSMETOLOGY
DIESEL VEHICLE MAINTENANCE
EARLY CHILDHOOD EDUCATION
ELECTRICAL INSTALLATION AND MAINTENANCE
FURNITURE PRODUCTION ASSISTANT+
INDUSTRIAL MAINTENANCE ENGINEER+
MACHINE SHOP
MECHANICAL DRAFTING+
NURSING—EDUCATION OPTIONS—PRACTICAL NURSING+
PLUMBING AND PIPE FITTING
RECREATION LEADERSHIP+
TOOL AND DIE
WELDING

+ Diploma options of two-year programs

AUTOMOTIVE BODY REPAIR (V-001)

CAREER INFORMATION

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair, and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal, and the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUB	1101	Auto Body I	4	12	8
WLD	1101	Auto Body Welding I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Industrial Relations	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUB	1102	Auto Body II	4	12	8
WLD	1130	Auto Body Welding II	1	3	2
BUS	1103	Small Business Operation	3	0	3
PHY-A	1101	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUB	1103	Auto Body III	4	12	8
DFT	112	Auto Body Drafting Interpretation	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUB	1104	Auto Body IV	4	12	8
AUB	1105	Auto Body Shop Application	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTO BODY REPAIR

*Part-time Curriculum**

AUB-A	1101	Auto Body Repair I	2-6-4
AUB-B	1101	Auto Body Repair I	2-6-4
AUB-A	1102	Auto Body Repair II	2-6-4
AUB-B	1102	Auto Body Repair II	2-6-4
AUB-A	1103	Auto Body Repair III	2-6-4
AUB-B	1103	Auto Body Repair III	2-6-4
AUB-A	1104	Auto Body Repair IV	2-6-4
AUB-B	1104	Auto Body Repair IV	2-6-4
AUB-A	1105	Auto Body Shop Applications	1-3-2
AUB-B	1105	Auto Body Shop Applications	1-3-2
AUB-C	1105	Auto Body Shop Applications	1-3-2
AHR-A	1101	Automotive Air Conditioning	3-0-3
AHR-B	1101	Automotive Air Conditioning	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	113	Auto Body Drafting Interpretation	1-3-2
ENG	1102	Communication Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY-A	1101	Automotive Applied Science	2-2-3
PSY	101	Industrial Relations	1-2-2
RDG	092	Reading	1-3-2
WLD	1101	Auto Body Welding I	1-3-2
WLD	1130	Auto Body Welding II	1-3-2

*Usually evenings.

AUTOMOTIVE MECHANICS (V-003)

CAREER INFORMATION

Automotive mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines, and other types of equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly, and identification of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all around" training in general automotive repair.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUM	1101	Automotive Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Industrial Relations	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUM	1102	Automotive Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation II	1	3	2
BUS	1103	Small Business Operations	3	0	3
PHY-A	1101	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUM	1103	Automotive Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUM	1104	Automotive Mechanics IV	4	12	8
AUM	1105	Automotive Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTOMOTIVE MECHANICS

*Part-time Curriculum**

AHR	1101A	Automotive Air Conditioning	3-0-3
AHR	1101B	Automotive Air Conditioning	0-3-1
AUM	1101A	Automotive Mechanics I	2-6-4
AUM	1102B	Automotive Mechanics I	2-6-4
AUM	1102A	Automotive Mechanics II	2-6-4
AUM	1103B	Automotive Mechanics II	2-6-4
AUM	1103A	Automotive Mechanics III	2-6-4
AUM	1104B	Automotive Mechanics III	2-6-4
AUM	1104A	Automotive Mechanics IV	2-6-4
AUM	1105B	Automotive Mechanics IV	2-6-4
AUM	1105A	Automotive Servicing	1-3-2
AUM	1105B	Automotive Servicing	1-3-2
AUM	1103C	Automotive Servicing	1-3-2
BUS	110	Small Business Operations	3-0-3
DFT	111	Mechanics Drafting Interpretation I	1-3-2
DFT	1102	Mechanics Drafting Interpretation II	1-3-2
ENG	1101	Communications Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1011A	Automotive Applied Science	2-2-3
PSY	101	Industrial Relations	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

ADVANCED AUTOMOTIVE OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PME	1202	Auto Electrical Electronics	4	9	7
PME	1203	Automotive Engine Tune-up	4	9	7
Elective			1	3	2
			9	21	16
WINTER QUARTER					
PME	1221	Front Suspension, Alignment and Power Steering	1	3	2
PME	1224	Advanced Automatic Transmissions	3	12	7
PME	1226	Automobile Servicing II	2	9	5
			6	24	14

ADVANCED IMPORTED CAR OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUT	1145	Transaxle Operation and Repair	3	9	6
AUT	1146	The Air Cooled Engine	2	6	4
AUT	1147	Imported Car Carburetion	2	6	4
			7	21	14
WINTER QUARTER					
AUT	1150	Imported Car Valve Trains	2	6	4
AUT	1154	The Wankel Engine	3	9	6
AUT	1158	Front Wheel Drive Systems	2	6	4
Elective			—	—	—
			7	21	14

COSMETOLOGY (V-009)

CAREER INFORMATION

Today the cosmetologist is called upon to advise men and women on problems of makeup, diet, and care of hair, skin, and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology, including the fundamentals of ethics, history, theory, and practice. The class activities include practical lessons, lectures, demonstrations, and student practice on wefts or mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
COS	1001	Scientific Study I	4	6	6
COS	1011	Mannequin Practice	1	18	7
			6	27	15

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
COS	1002	Scientific Study II	5	0	5
ENG	1102	Communication Skills	3	0	3
COS	1022	Clinical Application I	0	24	8
			8	24	16
SPRING QUARTER					
COS	1103	Scientific Study III	5	0	5
COS	1033	Clinical Application II	0	24	8
			5	24	13
SUMMER QUARTER					
COS	1004	Scientific Study IV	5	0	5
COS	1044	Clinical Application III	0	24	8
			5	24	13
		TOTAL HOURS	24	99	57
FALL QUARTER*					
COS	1005	Public Relations for Cosmetologists	3	0	3
COS	1006	Beauty Salon Business Operations	3	0	3
COS	1055	Chemistry Relating to Cosmetology	3	0	3
COS	1066	Hairstyling II	1	18	7
			10	18	16

*Note: The North Carolina State Board of Cosmetic Art has approved two options for the student of cosmetology to become state licensed:

1. Successfully complete 1200 school hours and work a six-month apprenticeship under a licensed cosmetologist after passing the North Carolina State Board examination or
2. Successfully complete 1500 school hours (substituting 300 hours for the apprenticeship) and pass the North Carolina State Board examination to become a licensed cosmetologist.

The additional courses have been added for the student who chooses the 1500 hour option. These are more advanced courses which will better prepare the student to become a licensed cosmetologist.

COSMETOLOGY

*Part-time Curriculum**

COS	1001	Scientific Study I	4-6-6
COS	1002	Scientific Study II	5-0-5
COS	1003	Scientific Study III	5-0-5
COS	1004	Scientific Study IV	5-0-5
COS	1011	Mannequin Practice	1-18-7
COS	1022A	Clinical Application I	0-6-2
COS	1022B	Clinical Application I	0-18-6
COS	1033A	Clinical Application II	0-15-5
COS	1033B	Clinical Application II	0-9-3
COS	1044A	Clinical Application III	0-3-1
COS	1044B	Clinical Application III	0-21-7
ENG	1102	Communication Skills	3-0-3
RDG	092	Reading	1-3-2

*Usually evenings.

DIESEL VEHICLE MAINTENANCE (V-013)

CAREER INFORMATION

The diesel vehicle maintenance person maintains, services, and repairs commercial motor-freight transportation equipment. This person is skilled in service work such as oil changing, chassis greasing, fuel and water leakage testing, belt replacing, and safety equipment checking. Skilled maintenance personnel should be able to read electrical diagrams and interpret and apply technical and service manuals, as well as troubleshoot, diagnose, and make general repairs.

In addition to mechanical skills, diesel maintenance people should be able to complete forms involved with repair and maintenance of commercial vehicles. The skilled person knows shop and vehicle safety principles and is trained to communicate with and in the language of truck drivers and service managers.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
HTM	1101	Truck Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Industrial Relations	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
HTM	1102	Truck Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation	1	3	2
BUS	1103	Small Business Operations	3	0	3
PHY	1101	Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
HTM	1103	Truck Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
HTM	1104	Truck Mechanics IV	4	12	8
HTM	1105	Truck Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

DIESEL VEHICLE MAINTENANCE

*Part-time Curriculum**

AHR	1101A	Automotive Air Conditioning - Part I	3-0-3
AHR	1101B	Automotive Air Conditioning - Part II	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	110	Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	1-3-2
ENG	1102	Communication Skills	3-0-3
HTM	1101A	Truck Mechanics I - Part I	2-6-4
HTM	1101B	Truck Mechanics I - Part II	2-6-4
HTM	1102A	Truck Mechanics II - Part I	2-6-4
HTM	1102B	Truck Mechanics II - Part II	2-6-4
HTM	1103A	Truck Mechanics III - Part I	2-6-4
HTM	1103B	Truck Mechanics III - Part II	2-6-4
HTM	1104A	Truck Mechanics IV - Part I	2-6-4
HTM	1104B	Truck Mechanics IV - Part II	2-6-4
HTM	1105A	Truck Servicing - Part I	1-3-2
HTM	1105B	Truck Servicing - Part II	1-3-2
HTM	1105C	Truck Servicing - Part III	1-3-2
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101	Applied Science	2-2-3
PSY	101	Industrial Relations	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

DRAFTING—MECHANICAL (V-O17)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations. Each course is prepared to enable an individual to advance.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, drawing the necessary details. The mechanical draftsman also prepares accurate scale drawings of parts of machines from specifications.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1101	Fundamentals of Math	3	0	3
MEC	101	Machine Processes	2	4	4
WLD	1129	Basic Welding	1	3	2
DFT	101	Technical Drafting	2	9	5
			9	19	16
WINTER QUARTER					
MAT	1102	Algebra	5	0	5
PHY	1101	Applied Science	2	2	3
MEC	102	Machine Processes	2	4	4
DFT	102	Technical Drafting	2	9	5
			11	15	17
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	1104	Trigonometry	3	0	3
MEC	122	Production Procedures	4	3	5
PHY	1102	Applied Drafting	2	2	3
DFT	103	Technical Drafting	3	9	5
			14	14	19
SUMMER QUARTER					
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
			11	18	18
		TOTAL HOURS	45	66	70

EARLY CHILDHOOD EDUCATION

The early childhood specialist curriculum is designed to fill the need for aids and technicians in a variety of job situations. The curriculum is designed to give a broad general education in human growth and development and experience working with children. Students will be given the basic skills needed to be competent assistants in a child care program or continue on to acquire skills to be professionals in a variety of child development institutions.

The early childhood specialist should possess good inter-personal skills, a love for children, and should be adaptive in order to function effectively in this position. The major function of the early childhood specialist is the care and guidance of young children. This includes a concern for the mental, social, physical, and emotional growth and development of the child. In a school or a child development center this may include outdoor play, storytelling, language and communication skills, experiences with music, art and dramatic activities.

Job titles vary with different agencies and schools. Some of the terms used are educational assistant, teacher aide, child care worker, early childhood specialist, and auxiliary educational personnel. Still others use assistant teacher or just teacher. Jobs for early childhood education assistants are found in hospitals, institutions for exceptional children, 24-hour care units, Headstart programs, day care and child development centers, private or cooperative nurseries and pre-kindergarten programs, and private schools.

A high school diploma or equivalent is required for the early childhood specialist program. Additionally, satisfactory placement scores in reading, English and mathematics must be achieved in order to enter this diploma program. Special courses in developmental studies are offered to help the student who does not achieve satisfactory scores for entry.

Reading level of 12.0 or RDG 101 is required for graduation.

Required Core Courses

		COURSE TITLE	CLASS	LAB	CREDIT
EDU	101	Child Growth and Development	5	2	6
EDU	202	Introduction to Early Childhood Education	3	0	3
EDU	220	Language Experiences in Education	3	0	3
EDU	221	Early Childhood Methods and Materials	5	3	6
SPH	100	Interpersonal Communication	3	0	3
ENG	101	Grammar and Composition	2	3	3
PSY	204	Child Behavior	3	0	3
RDG	101	Reading or Proficiency	1	3	2
PED	101	Physical Activities for children	2	2	3
			27	13	32

Social Sciences

This requirement is met by completing 6 credit hours from any of the following:

Social Sciences

PSY	201	General Psychology	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction ot Sociology	3	0	3
SOC	203	Contemporary Problems and Social Issues	3	0	3
SOC	205	Marriage and the Family	3	0	3

Health/Personal Awareness

This requirement is met by completing 6 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	185	First Aid and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
REC	203	Recreational Leadership	3	0	3

Cultural Arts and Skills

This requirement is met by completing 6 credit hours from any of the following:

EDU	200	Movement, Drama and Play	3	2	4
ART	127	Arts and Crafts I	1	4	3
ART	204	Art for Children	2	2	3
REC	121	Social Recreation	3	0	3
REC	215	Recreational Dance	1	4	3
PED	152	Folk Dancing	0	2	1

Humanities/Communication

This requirement is met by completing 6 credit hours from any of the following:

ENG	102	English Composition	3	0	3
ENG	103	Introduction to Literature	3	0	3
ENG	104	Report Writing	3	0	3
EDM	104	Audiovisual Equipment	3	0	3
EDM	206	Children's Literature	3	3	3
SPH	101	Fundamentals of Speech	3	3	3

Electives

This requirement is met by completing 8 credit hours from any of the following:

Any 100 through 299 course

May include EDU 111 Seminar and Practicum by permission of the student's advisor

May include BUS 195 Small Business Management

May include EDU 201 Introduction to Education

TOTAL CREDIT HOURS 64

ELECTRICAL INSTALLATION AND MAINTENANCE (V-018)

CAREER INFORMATION

A student will have acquired a basic knowledge of the National Electrical Code as it pertains to wiring design, wiring methods, materials, and equipment for general use. He/she will also develop skill in using electrical prints, trouble-shooting, electrical controls, and the repair of electrical and electronic equipment and will acquire a basic knowledge of business procedures and organization.

Within four to six years after completion of this course and with dedication to one's work, the student can become a highly skilled electrical craftsman in this area.

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in either of two general areas:

(1) Construction—including new wiring and rewiring of residential, commercial, and industrial buildings.

(2) Maintenance—including installation and maintenance of motors, motor controls, and industrial electronics.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1115	Electrical Math	5	0	5
PSY	101	Industrial Relations	1	2	2
DFT	116	Blueprint Reading: Building Trade	0	3	1
ELC	1112	Direct and Alternating Current	4	12	8
			11	20	18

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	1102	Communication Skills	3	0	3
PHY	1101	Applied Science	0	2	3
DFT	119	Blueprint Reading: Electrical	0	3	1
ELC	1113	Alternating Current and Direct Current and Machines and Controls	4	12	8
			9	17	15
SPRING QUARTER					
ELC	115	National Electric Code	3	0	3
BUS	1103	Small Business Operations	3	0	3
ELN	1118	Industrial Electronics Fundamentals	2	6	4
ELN	1119	Industrial Electronic Controls	3	6	4
Elective		(Humanities)	3	0	3
			13	12	17
SUMMER QUARTER					
ELC	1124	Residential Wiring	4	12	8
ELC	1125	Commercial and Industrial Wiring	4	12	8
			8	24	16
		TOTAL HOURS	41	73	66

ELECTRICAL INSTALLATION AND MAINTENANCE

Part-time/Evening Curriculum

BUS	1103	Small Business Operations	3-0-3
DFT	116	Blueprint Reading: Building Trade	0-3-1
DFT	119	Blueprint Reading: Electrical	0-3-1
ELC	115	National Electric Code	3-0-3
ELC	1112A	Direct and Alternating Current	2-6-4
ELC	1112B	Direct and Alternating Current	2-6-4
ELC	1113A	Alternating Current and Direct Current and Machine and Controls	2-6-4
ELC	1113B	Alternating Current and Direct Current and Machine and Controls	2-6-4
ELC	1124A	Residential Wiring	2-6-4
ELC	1124B	Residential Wiring	2-6-4
ELC	1125A	Commercial and Industrial Wiring	2-6-4
ELC	1125B	Commercial and Industrial Wiring	2-6-4
ELN	1118	Industrial Electronics Fundamentals	2-6-4
ELN	1119	Industrial Electronics Controls	2-6-4
ENG	1102	Communication Skills	3-0-3
MAT	1115	Electrical Math	5-0-5
PHY	1101	Applied Science	2-2-3
PSY	101	Industrial Relations	1-2-2
RDG	092	Reading	1-3-2
Elective	092	(Humanities)	3-0-3

FURNITURE PRODUCTION ASSISTANT (V-040)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum was developed by the furniture industry advisory committee and this college with the primary purpose of better performance on the job. This would include people who have furniture production jobs who want to improve themselves, as well as people without jobs who want to become qualified for jobs in the furniture industry.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
PSY	206	Interpersonal Skills	3	0	3
MAT-T	100	Mathematics	3	0	3
DFT	101	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	2	0	2
FUR	108	Production Equipment I	4	0	4
			15	9	18

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
DFT	102	Technical Drafting	2	6	4
FUR	102	Construction and Billing I	1	3	2
FUR	109	Production Equipment II	4	0	4
FUR	112	Routing, Scheduling, and Processing	2	2	3
			9	11	13
SPRING QUARTER					
ISC	102	Industrial Safety	3	0	3
ISC	203	Motion Study	2	2	3
FUR	103	Construction and Billing II	1	3	2
FUR	106	Abrasive Materials and Glues	2	2	3
ENG	1102	Communication Skills	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16

INDUSTRIAL MAINTENANCE ENGINEER

As modern industry grows and becomes more sophisticated, there is an increasing demand for skilled personnel trained to install and maintain industrial, electrical, and mechanical equipment. Qualified industrial maintence engineers are needed by industries and manufacturing companies to perform preventative maintenance and repair work on all types of electrical and mechanical equipment.

This program consists of a core of courses to provide the student with a general background in the understanding of electrical-mechanical systems and the practical application of skills needed in the field. Special emphasis is given to the use of blueprints and sketches, hand tools and metal-working machines, and measuring and testing instruments.

A second year of courses is provided for those who choose to pursue an associate degree.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	101	Technical Mathematics	5	0	5
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading-Mechanical	0	3	1
ELC	101	Basic Electricity	2	6	4
MEC	101	Machine Processes	2	4	4
ISC	102	Industrial Safety	3	0	3
			13	16	19
WINTER QUARTER					
DFT	119	Blueprint Reading-Electrical	0	3	1
MAT-T	102	Technical Mathematics (Algebra)	5	0	5
ELC	102	Intermediate Electricity	2	6	4
MEC	102	Machine Processes	2	4	4
WLD	120	Welding, Oxyacetylene	2	6	4
			11	19	18
SPRING QUARTER					
MEC	235	Hydraulics and Penumatics	2	6	4
IMT	101	Basic Materials Handling	2	6	4
SPH	101	Fundamentals of Speech	3	3	4
WLD	121	Arc Welding	2	6	4
			9	21	16
		TOTAL HOURS	43	71	68

MACHINE SHOP (V-032)

CAREER INFORMATION

The machine shop is the backbone of the industrial economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. Both training and work experience enable the machinist to plan and carry through the operations needed in turning out a machined product. A skilled machinist is able to: select the proper tools, materials, and methods required for each job; plan the cutting and finishing operations called for on the blueprint or written instructions; make most standard shop computations related to toolings, feeds, speeds, and dimensions of the work; use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of the work to, sometimes, within thousandths of an inch.

Skilled workers must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition, a machinist also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes, and automatic screw machines and becomes familiar with the composition of metals so as to be able to select, heat treat, and quench parts to improve their mechanical properties.

Such a broad knowledge enables the skilled machinist to turn a piece of metal into an intricate, precise final product.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1101	Fundamentals of Math	3	0	3
DFT	113	Blueprint Reading — Mechanical	0	3	1
WLD	1129	Basic Welding	1	3	2
MEC	1101	Machine Shop Theory and Practice	4	12	8
			9	21	16
WINTER QUARTER					
MAT	1102	Algebra	5	0	5
DFT	114	Blueprint Reading — Mechanical	0	3	1
MEC	1102	Machine Shop Theory and Practice	4	12	8
ENG	1102	Communication Skills	3	0	3
PSY	101	Industrial Relations	1	2	2
			13	17	19
SPRING QUARTER					
MAT	1104	Trigonometry	3	0	3
DFT	115	Blueprint Reading — Mechanical	0	3	1
MEC	1103	Machine Shop Theory and Practice	4	12	8
MEC	1115	Treatment of Ferrous Metals	1	3	2
MEC	1108	Introduction to Computer Numerical Controls	2	3	3
			10	21	17
SUMMER QUARTER					
MAT	1123	Math-Machinist	3	0	3
MEC	1104	Machine Shop Theory and Practice	3	9	6
MEC	1116	Treatment of Non-ferrous Metals	1	3	2
MEC	1122	Production Procedures	4	3	5
MEC	1109	Intermediate Computer Numerical	2	3	3
			13	18	19
		TOTAL HOURS	45	77	71

MACHINE SHOP

*Part-time Curriculum**

DFT	113	Blueprint Reading-Mechanical	0-3-1
DFT	114	Blueprint Reading-Mechanical	0-3-1
DFT	115	Blueprint Reading-Mechanical	0-3-1
MAT	1101	Fundamentals of Math	3-0-3
MAT	1102	Algebra	5-0-5
MAT	1104	Trigonometry	3-0-3
MAT	1123	Math-Machinist	3-0-3
MEC	1101A	Machine Shop Theory and Practice	2-6-4
MEC	1101B	Machine Shop Theory and Practice	2-6-4
MEC	1102A	Machine Shop Theory and Practice	2-6-4
MEC	1102B	Machine Shop Theory and Practice	2-6-4
MEC	1103A	Machine Shop Theory and Practice	2-6-4
MEC	1103B	Machine Shop Theory and Practice	2-6-4
MEC	1104A	Machine Shop Theory and Practice	1-6-3
MEC	1104B	Machine Shop Theory and Practice	2-3-3
MEC	1115	Treatment of Ferrous Metals	2-3-3
MEC	1116	Treatment of Non-ferrous Metals	4-3-5
MEC	1122	Production Processes	1-3-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	

*Usually Evenings

NURSING—EDUCATION OPTIONS—PRACTICAL NURSING (T-116)

(DIPLOMA OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and, in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	6	8
NUR	102	Nutrition	3	0	3
			18	11	22
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical - Surgical Nursing I	6	0	6
NUR	105	Medical - Surgical Nursing I - Lab	0	15	5
BIO	135	Microbiology	2	2	3
			14	17	20
SPRING QUARTER					
ENG	102	English Composition	3	0	3
NUR	106	Maternal - Infant Nursing I	4	0	4
NUR	107	Maternal - Infant Nursing I - Lab	0	6	2
NUR	108	Child Health Nursing I	4	0	4
NUR	109	Child Health Nursing I - Lab	0	6	2
			11	12	15

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
ENG	*104	Report Writing	3	0	3
NUR	110	Medical - Surgical II	6	0	6
NUR	111	Medical - Surgical II - Lab	0	15	0
NUR	112	Seminar I	2	0	2
			11	15	16
		TOTAL HOURS	54	55	73

*ENG 103 may be substituted for ENG 104.

PLUMBING AND PIPEFITTING (V-037)

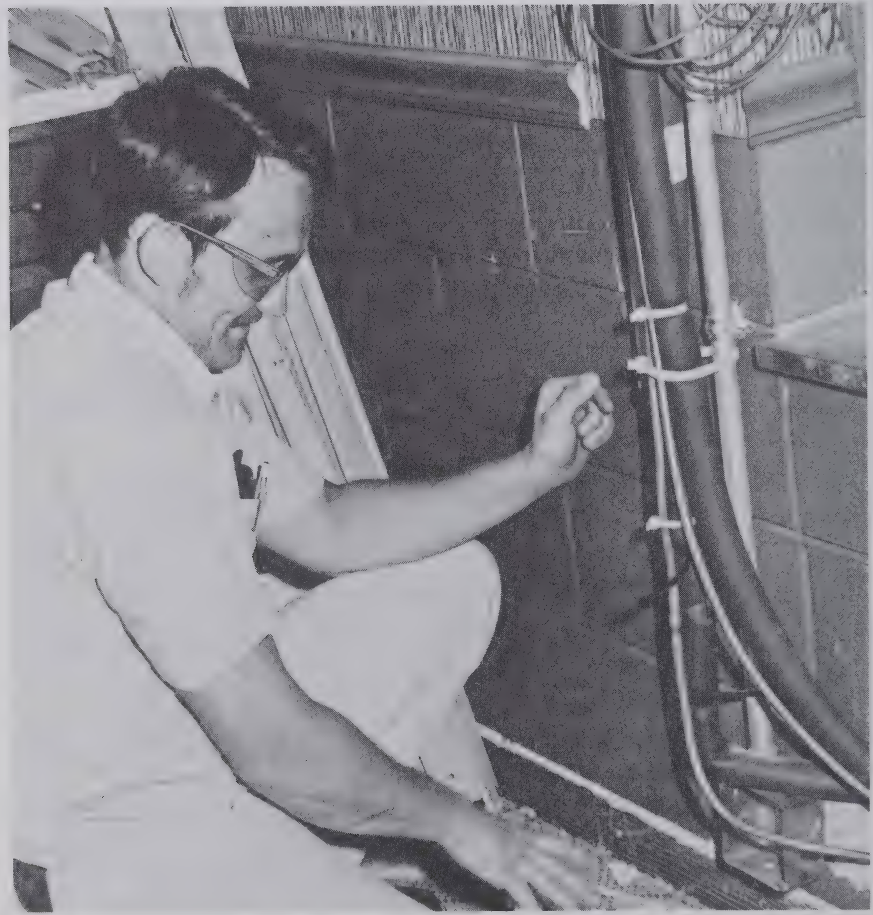
Plumbing and pipefitting is the craft of installing piping systems to carry water, steam, air, and other liquids or gases needed for sanitation, air conditioning, heating, and other industrial processes. There has been a steady increase in the demand for qualified people in the pipe trades.

This curriculum in plumbing and pipefitting is designed to train individuals to enter this occupation with the knowledge and basic skills that will enable them to perform effectively. Courses in plumbing and pipefitting practices are included to provide practical experience, as well as theoretical information one must know to enter, advance, and keep up-to-date with the pipe trades.

Reading level of 7.0 or RDG 092 required for graduation. Basic hand tools required.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PLU	1101	Plumbing I	4	12	8
DFT	116	Blueprint Reading: Building Trades	0	3	1
RDG	092	Reading	1	3	2
PSY	101	Industrial Relations	1	2	2
ENG	1102	Communication Skills	3	0	3
			9	20	16
WINTER QUARTER					
PLU	1102	Plumbing II	4	12	8
DFT	122	Blueprint Reading: Plumbing	1	3	2
MAT	1110	Fundamentals of Math for Plumbers and Welders	5	0	5
PED	185	First Aid and Safety	3	0	3
			13	15	18

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
PLU	1103	Plumbing III	4	12	8
DFT	123	Blueprint Reading: Plumbing	1	3	2
PHY	1110	Applied Science for Plumbers and Welders	2	2	3
WLD	120	Welding, Oxyacetylene	2	6	4
			9	23	17
SUMMER QUARTER					
PLU	1104	Plumbing IV	4	12	8
DFT	124	Estimation and Take-Off Practices	0	3	1
WLD	121	ARC Welding	2	6	4
			6	21	13
		TOTAL HOURS	37	79	64



PLUMBING AND PIPEFITTING

Part-time Curriculum

DFT	116	Blueprint Reading: Building Trades	0-3-1
DFT	122	Blueprint Reading: Plumbing	1-3-2
DFT	123	Blueprint Reading: Plumbing	1-3-2
DFT	124	Estimation and Take-Off Practices	0-3-1
ENG	1102	Communication Skills	3-0-3
MAT	1110	Fundamentals of Math for Plumbers and Welders	5-0-5
PED	185	First Aid and Safety	3-0-3
PHY	1110	Applied Science for Plumbers and Welders	2-2-3
PLU	1101A	Plumbing I	2-6-4
PLU	1101B	Plumbing I	2-6-4
PLU	1102A	Plumbing II	2-6-4
PLU	1102B	Plumbing II	2-6-4
PLU	1103A	Plumbing III	2-6-4
PLU	1103B	Plumbing III	2-6-4
PLU	1104A	Plumbing IV	2-6-4
PLU	1104B	Plumbing IV	2-6-4
PSY	101	Industrial Relations	1-2-2
RDG	092	Reading	1-3-2
WLD	120	Welding, Oxyacetylene	2-6-4
WLD	121	Arc Welding	2-6-4

RECREATION LEADERSHIP (T-083)

The recreation leadership curriculum at Caldwell Community College and Technical Institute is designed to develop recreation leaders for a variety of agencies serving the community's leisure time needs. The diploma curriculum provides the student with the skills and background knowledge to serve as a recreational aide in all fields of recreation located in public, private, commercial and institutional settings.

Required Core Recreation Courses

		COURSE TITLE	CLASS	LAB	CREDIT
REC	101	Introduction to Recreation	5	0	5
REC	102	Recreation and Special Populations	3	0	3
REC	103	Recreational Programming	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	208	Intramurals and Sports Management	0	6	2
REC	209	Field Work	0	9	3
REC	211	Recreation Seminar	1	0	1
			15	15	20

Cultural Arts and Skills

This requirement is met by completing 12 credit hours from any of the following:

ART	120	Ceramics I	2	2	3
ART	127	Arts and Crafts I	1	4	3
ART	204	Art for Children	2	2	3
MUS	107	Piano	0	2	1
MUS	111	Guitar	0	2	1
PED	118	Aerobic Dancing	0	3	1
PED	152	Folk Dancing	0	2	1
PED	154	Social Dance	0	2	1
REC	121	Social Recreation	3	0	3
REC	215	Recreational Dance	1	4	3
EDU	200	Movement/Drama and Play	3	2	4

Social Sciences

This requirement is met by completing 9 credit hours from any of the following:

HEA	110	Gerontology I: Aging Process	3	0	3
PSY	201	General Psychology	3	0	3
PSY	204	Child Behavior	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	213	Abnormal Psychology	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
REC	104	Rehabilitation	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems and Social Issues	3	0	3
SOC	205	Marriage and the Family	3	0	3

Health/Personal Awareness

This requirement is met by completing 6 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	180	Personal and Community Health	3	0	3
PED	185	First Aid and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
PSY	209	Human Sexual Behavior	3	0	3
REC	202	Recreational Leadership	3	0	3

Humanities/Communication

This requirement is met by completing the following 3 credit hours:

ENG	101	English Composition	2	3	3

Outdoor Sports and Skills

This requirement is met by completing 12 credit hours from any of the following:

PED	101	Physical Activities for Children	2	2	3
PED	110	Archery	0	2	1
PED	111	Badminton	0	2	1
PED	113	Beginning Golf	0	3	1
PED	114	Physical Fitness	0	3	1
PED	115	Beginning Tennis	0	3	1
PED	116	Beginning Skiing	0	3	1
PED	117	Beginning Swimming	0	2	1
PED	125	Backpacking and Mountain Climbing	0	2	1
PED	132	Soccer	0	2	1
PED	133	Softball	0	2	1
PED	135	Canoeing	0	3	1
PED	140	Ice Skating	0	2	1
PED	141	Horseback Riding	0	2	1
PED	200	Intermediate Tennis	0	3	1
PED	201	Introduction to Physical Education	3	0	3
PED	213	Advanced Golf	0	2	1
PED	215	Advanced Tennis	0	2	1
REC	106	Camping	5	0	5
REC	203	Water Sports	1	4	3

Elective

This requirement is met by completing 3 credit hours from any 100 to 299 course.

TOTAL CREDIT HOURS 65

TOOL AND DIE (V-048)

CAREER INFORMATION

The tool and die maker provides the foundation of many industries. This individual is highly skilled and possesses a tremendous depth of technical knowledge. This curriculum is designed to start an advanced machinist into the elementary requirements of tool and die making and progress into more complex dies, jigs and fixtures, gages, and other areas.

The program will enable the advanced machinist to compare the machines found in a tool and die shop with those found in the average machine shop. Each student will be required to become highly proficient in the use of the machines used in tool and die making. The related courses are designed to give the student an opportunity to advance knowledge in mathematics, strength of materials, drafting, and hydraulics and pneumatics.

Occupational opportunities are found in metal-working industries, job shops, captive tool rooms, maintenance shops, and a wide variety of other industries using tools, dies, and jigs and fixtures for repetitive production products.

To be eligible for the tool and die program, the student must have completed the machine shop curriculum or have equivalent work experience.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	1207	Machine Drafting	1	6	3
MAT	1201	Trigonometry	5	0	5
MEC	1201	Machine Processes	3	12	7
			9	18	15
WINTER QUARTER					
MEC	1202	Machine Processes	3	12	7
MEC	1210	Metallurgy	2	3	3
MAT	1202	Uses of Handbook	3	0	3
MEC	1207	Toolmaking	3	3	4
			11	18	17
SPRING QUARTER					
MEC	1203	Machine Processes	3	12	7
DFT	1216	Die Blueprint Reading	0	3	1
MEC	1205	Strength of Material	2	3	3
MEC	1235	Hydraulics and Pneumatics	2	3	3
			7	21	14
SUMMER QUARTER					
MEC	1204	Machine Processes	3	12	7
MEC	1299	Special Problems (Tools and Molds)	3	6	5
MEC	1214	Tool Design and Planning	2	3	3
			8	21	15
		TOTAL HOURS	35	78	61

WELDING (V-050)

CAREER INFORMATION

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Ship-building, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
WLD	1120	Welding Theory and Practice	3	12	7
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
MEC	1117	Basic Metals Identification	1	2	2
WLD	1112	Welding Inspection and Codes	3	0	3
			8	20	15
WINTER QUARTER					
WLD	1121	Welding Theory and Practice	2	18	8
DFT	120	Blueprint Reading: Welding	0	3	1
ENG	1102	Communication Skills	3	0	3
MAT	1110	Fundamentals of Math	5	0	5
			10	21	17
SPRING QUARTER					
WLD-A	1123	Inert Gas Welding I (TIG)	2	6	4
WLD	1124	Pipe Welding	3	12	7
DFT	121	Pattern Development and Sketching	0	3	1
PHY	1110	Applied Science for Plumbers and Welders	2	2	3
			7	23	15
SUMMER QUARTER					
WLD	1122	Commercial and Industrial Practices	3	9	6
WLD	1125	Certification Practices	3	6	5
WLD-B	1123	Inert Gas Welding II (MIG)	2	6	4
BUS	1103	Small Business Operations	3	0	3
			11	21	18
		TOTAL HOURS	36	85	65

WELDING

*Part-time Curriculum**

BUS	1103	Small Business Operations	3-0-3
DFT	113	Blueprint Reading: Mechanical	0-3-1
DFT	120	Blueprint Reading: Welding	0-3-1
DFT	121	Pattern Devel. and Sketching	0-3-1
ENG	1102	Communication Skills	3-0-3
MAT	1110	Fundamentals of Math	5-0-5
MEC	1117	Basic Metals Identification	1-2-2
PHY	1110	Applied Science	2-2-3
RDG	092	Reading	1-3-2

WLD	1112	Welding Inspection and Codes	3-0-3
WLD	1120A	Welding Theory and Practice	2-6-4
WLD	1120B	Welding Theory and Practice	1-6-3
WLD	1121A	Welding Theory and Practice	1-6-3
WLD	1121B	Welding Theory and Practice	1-6-3
WLD	1121C	Welding Theory and Practice	0-6-2
WLD	1122A	Commercial and Industrial Pr.	2-6-4
WLD	1122B	Commercial and Industrial Pr.	1-3-2
WLD	1123A	Inert Gas I	2-6-4
WLD	1123B	Inert Gas II	2-6-4
WLD	1124A	Pipe Welding	2-6-4
WLD	1124B	Pipe Welding	1-6-3
WLD	1125	Certification Practices	3-6-5

*Usually evenings.

OCCUPATIONAL ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

The associate in applied science degree programs are designed to prepare persons for technician level occupations. More emphasis is given to theory than in diploma courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area. Caldwell Community College and Technical Institute offers the following associate in applied science degree programs:

ACCOUNTING
BIOMEDICAL ELECTRONICS TECHNOLOGY
BUSINESS ADMINISTRATION
BUSINESS DATA SYSTEMS
DRAFTING AND DESIGN TECHNOLOGY
DEVELOPMENTAL DISABILITIES TECHNOLOGY
ELECTRONICS ENGINEERING TECHNOLOGY
FOOD SERVICE MANAGEMENT
FURNITURE PRODUCTION TECHNOLOGY
INDUSTRIAL MAINTENANCE ENGINEERING
MEDICAL SONOGRAPY (Ultrasound)
NUCLEAR MEDICINE TECHNOLOGY
NURSING—EDUCATION OPTIONS—ASSOCIATE DEGREE
OCCUPATIONAL THERAPY ASSISTANT
PARALEGAL TECHNOLOGY
PUBLIC ADMINISTRATION
RADIOLOGIC TECHNOLOGY
RECREATION LEADERSHIP (Therapeutic and Community)
SECRETARIAL SCIENCE
  Executive Secretary Option
  Medical Secretary Option

ACCOUNTING (T-016)

CAREER INFORMATION

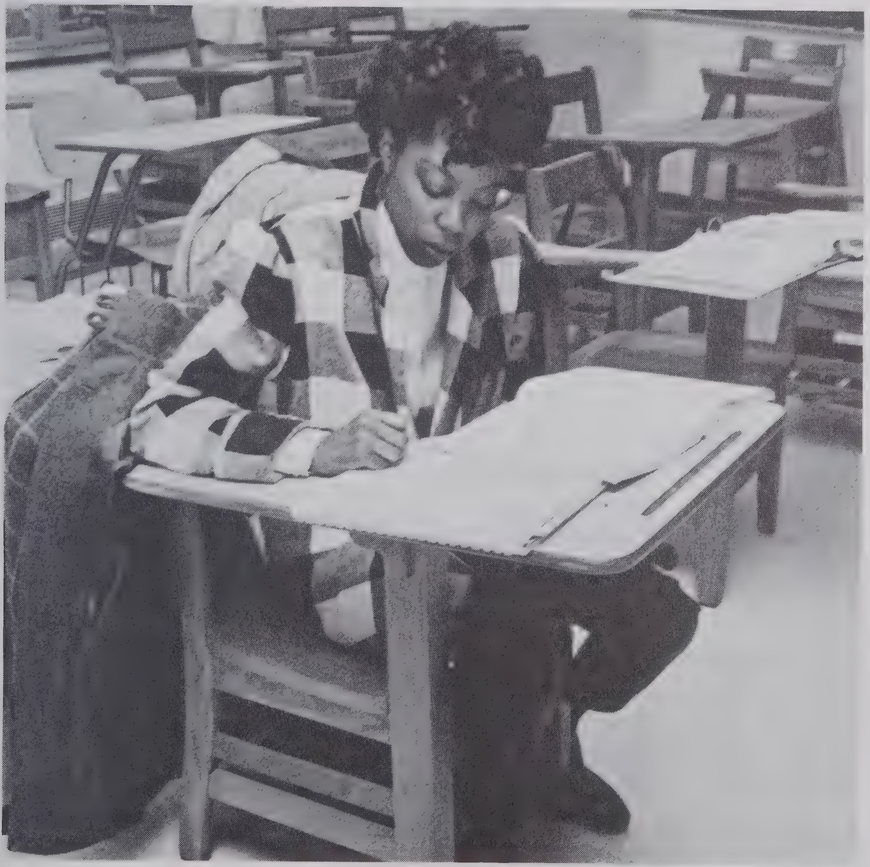
The purpose of the accounting curriculum is to prepare the individual to enter the accounting profession through study of accounting principles, theories, and practices with related study in law, finance, management, and data processing operations.

The curriculum is designed to prepare the individual for entry-level accounting positions, such as junior accountant, bookkeeper, accounting clerk, cost clerk, payroll clerk and related data processing occupations.

With experience and additional education, the individual will be able to advance to positions such as systems accountant, cost accountant, budget accountant and property accountant.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	115	Business Law I	3	0	3
BUS	120	Principles of Accounting I	3	2	4
			18	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Correspondence	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	116	Business Law II	3	0	3
BUS	121	Principles of Accounting II	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	102	Typewriting I	2	3	3
BUS	122	Principles of Accounting III	3	2	4
BUS	272	Principles of Supervision	3	0	3
			14	7	17
FALL QUARTER					
BUS	220	Intermediate Accounting I	3	2	4
BUS	225	Cost Accounting	3	2	4
BUS	195	Small Business Management	3	0	3
ECO	201	Principles of Economics I	3	0	3
BUS	233	Personnel Management	3	0	3
EDP	105	Microcomputer Applications	3	0	3
			18	4	20

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
BUS	221	Intermediate Accounting II	3	2	4
BUS	229	Taxes I	3	2	4
BUS	219	Credit Procedures	3	0	3
BUS	275	Programming	3	0	3
ECO	202	Principles of Economics II	3	0	3
			15	4	17
SPRING QUARTER					
BUS	222	Intermediate Accounting III	3	2	4
BUS	230	Taxes II	3	0	3
BUS	269	Auditing	3	2	4
HUM	200	South in a Changing World	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
			15	4	17
		TOTAL HOURS	97	28	110



BIOMEDICAL ELECTRONICS TECHNOLOGY (T-158)

CAREER INFORMATION

Because of the physician's increased use of complex equipment for diagnosis, regulation of body functions, and monitoring and reading of patient problems and progress, well-trained persons are needed for medical equipment maintenance and repair. A biomedical technician must be able to install, operate, repair, and maintain electronic equipment such as x-ray machines, incubators, electronic thermometers, pacemakers, radio frequency surgical devices, cardiac pressure monitors, sterilizers, operating room lamps and tables, automatic culture counters, and pulmonary equipment. The biomedical technician may also be called upon to maintain or make emergency repairs on surgical equipment in the hospital operating room, to instruct hospital personnel in the safe and correct use of equipment, and to be involved in evaluation and testing of new electromedical devices.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ELC	112	Alternating and Direct Current	2	6	4
MAT-T	101	Technical Math	5	0	5
ENG	101	Grammar and Composition	2	3	3
PHY	101	Physics: Work, Energy, Power	3	2	4
			12	11	16
WINTER QUARTER					
ELN	124	Electronics Fundamentals	2	4	4
ENG	102	English Composition	3	0	3
MAT-T	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
			13	6	16
SPRING QUARTER					
ELN	134	Intermediate Electronics	2	4	4
MAT-T	103	Technical Math	5	0	5
MEC	235	Hydraulics and Pneumatics	3	3	4
ENG	104	Report Writing	3	0	3
			23	7	16
SUMMER QUARTER					
ELN	224	Advanced Electronics	2	4	4
BIO	105	Basic Life Science	4	2	5
ELN	234	Digital Electonics	2	4	4
BMT	254	Biomedical Instrumentation I	2	4	4
			10	14	17

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
BIO	208	Introduction to Study of Diseases	3	0	3
BMT	264	Biomedical Instrumentation II	2	4	4
BMT	274	X-Ray and Nuclear Medicine	2	4	4
BMT	201	Medical Instructions	3	0	3
Elective			3	0	3
			13	8	17
WINTER QUARTER					
BMT	271	Biomedical Instrumentation III	2	4	4
BMT	244	Safety Inspections and Standards	2	4	4
BMT	280	Medical Circuit Trouble-shooting	2	4	4
Elective			3	0	3
			9	12	15
SPRING QUARTER					
BMT	228	Practicum	0	39	13
		TOTAL HOURS	70	97	110

BUSINESS ADMINISTRATION (T-018)

CAREER INFORMATION

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning office clerk to management trainee. The duties and responsibilities of the graduate vary in different firms. Positions are potentially available in business, accounting, advertising, banking, credit finance, retailing, wholesaling, hotel, tourism, industry, transportation, and communications.

Through the department of business administration, students may obtain majors in general business, financial management/accounting, personnel management, and industrial management.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	115	Business Law I	3	0	3
BUS	120	Principles of Accounting I	3	2	4
			18	5	20

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Correspondence	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	116	Business Law II	3	0	3
BUS	121	Principles of Accounting II	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	102	Typewriting I	2	3	3
BUS	122	Principles of Accounting III	3	2	4
BUS	272	Principles of Supervision	3	0	3
			14	7	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
BUS	123	Finance I	3	0	3
BUS	195	Small Business Management	3	0	3
BUS	239	Marketing	5	0	5
BUS	243	Advertising	3	2	4
			17	2	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
BUS	124	Finance II	3	0	3
BUS	219	Credit Procedures	3	0	3
BUS	229	Taxes I	3	2	4
EDP	105	Microcomputer Applications	3	0	3
BUS	233	Personnel Management	3	0	3
			18	2	19
SPRING QUARTER					
BUS	232	Sales	3	0	3
BUS	235	Business Management	3	0	2
BUS	247	Insurance	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
HUM	200	The South in a Changing World	3	0	3
			15	0	15
		TOTAL HOURS	99	20	108

BUSINESS DATA SYSTEMS (T-022)

CAREER INFORMATION

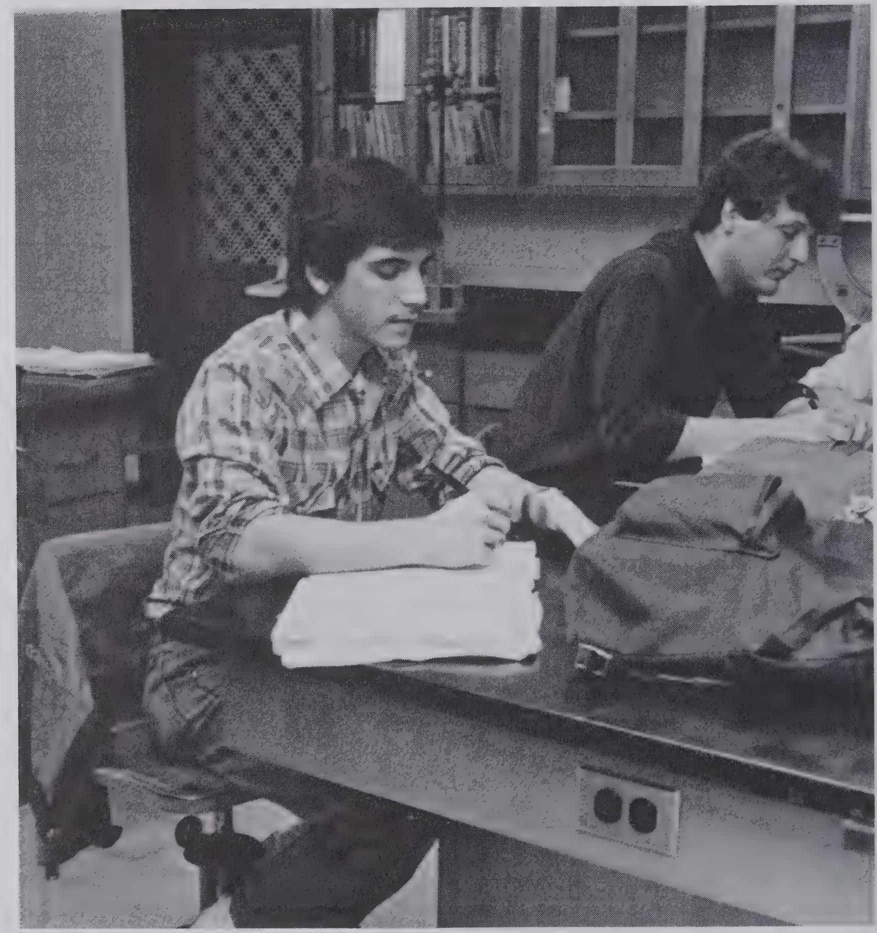
Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be a member of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of the management dictate.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	*CLASS*	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	102	Typewriting I	2	3	3
BUS	110	Office Machines	2	2	3
BUS	120	Principles of Accounting I	3	2	4
EDP	104	Introduction to Data Systems	3	2	4
EDP	107	Programming Logic	3	0	3
			15	12	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
BUS	121	Principles of Accounting II	3	2	4
EDP	101	Computers and Programming I	4	4	6
ECO	108	Consumer Economics	3	0	3
			18	6	21
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	101	Introduction to Business	5	0	5
BUS	122	Principles of Accounting III	3	2	4
EDP	102	Computers and Programming II	4	4	6
			15	6	18
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	214	Statistics	5	0	5
EDP	103	Computers and Programming III	4	4	6
BUS	225	Cost Accounting	3	2	4
			15	6	18

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
EDP	204	Computers and Programming IV	4	4	6
EDP	208	Systems Orientation	4	4	6
BUS	229	Taxes I	3	2	4
HUM	200	The South in a Changing World	3	0	3
			14	10	19
SPRING QUARTER					
EDP	105	Microcomputer Applications	3	0	3
EDP	214	Practicum I	0	15	5
EDP	217	Data Processing Project	1	8	5
EDP	221	BASIC Programming Language	2	2	3
			6	25	16
		TOTAL HOURS	83	65	112



DEVELOPMENTAL DISABILITIES TECHNOLOGY (T-168)

CAREER INFORMATION

The developmental disabilities technology program is a two-year college program leading to an associate in applied science degree. Students will be prepared to work as group home managers, sheltered workshop personnel or educational service personnel serving the developmentally disabled. Students will have the intern option to specialize in residential, vocational, and personal/social/academic settings.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program.

For specific policies concerning the developmental disabilities technology program, see the Student Development Office or student handbook.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
PSY	201	General Psychology	3	0	3
DDT	101	Services to Handicapped Persons	3	2	4
SOC	201	Introduction to Sociology	3	0	3
PED	185	First Aid and Safety	3	0	3
			14	5	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BIO	105	Basic Life Science	4	2	5
PSY	215	Introduction to Exceptional Individuals	3	0	3
PSY	206	Interpersonal Skills	3	0	3
PSY	210	Human Growth and Development	3	0	3
			16	2	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
DDT	105	Basic Nutrition	3	0	3
DDT	104	Community Resources Utilization	3	3	4
DDT	102	Normalized Community Living	3	0	3
DDT	103	Individual Assessment and Programming	3	0	3
REC	102	Recreation for Special Populations	3	0	3
PSY	213	Abnormal Psychology	3	0	3
			21	3	22

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
DDT	201	Counseling I (Communication Skills)	3	2	4
DDT	202	Behavior Management I (Principles)	3	2	4
PHY	209	Human Sexual Behavior	3	0	3
DDT	203	Residential Development Services I OR	3	0	3
DDT	204	Vocational Development Services I OR			
DDT	205	Personal-Social-Academic Development Services I			
			15	4	17
FALL QUARTER					
DDT	206	Counseling II (Problem Solving)	3	3	4
DDT	207	Behavior Management II (Practices)	3	3	4
DDT	211	Basic Pharmacology	3	0	3
Elective			3	0	3
DDT	208	Residential Development Services II OR	3	3	4
DDT	209	Vocational Development Services II OR			
DDT	210	Personal-Social-Academic Development Services II			
			15	9	18
WINTER QUARTER					
DDT	212	Behavior Management III	3	2	4
DDT	213	Seminar	3	0	3
DDT	214	Internship	0	21	7
			6	23	14
		TOTAL HOURS	87	46	104

DRAFTING AND DESIGN TECHNOLOGY (T-043)

(DEGREE OPTION)

CAREER INFORMATION

This curriculum is designed to prepare a graduate to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters, students will be prepared to enter the field on the trade level. Students will study basic drafting in the first two quarters. From there they will go into the mechanical specialties for the remaining two quarters.

Related courses are offered in a sequential manner to enable students to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling, or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, persons planning to continue for the fifth and sixth quarters and receive an A.A.S. degree must have a high school diploma or successfully pass the high school proficiency.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT-T	101	Technical Math	5	0	5
PHY	101	Physics: Work, Energy, Power	3	2	4
DFT	101	Technical Drafting	2	9	5
MEC	101	Machine Processes	2	4	4
			14	18	21
WINTER QUARTER					
ENG	102	English Composition	3	0	3
MAT-T	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
DFT	102	Technical Drafting	2	9	5
MEC	102	Machine Processes	2	4	4
			15	15	21
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT-T	103	Technical Math	5	0	5
PHY	103	Physics: Electricity	3	2	4
PHY	106	Applied Mechanics	5	0	5
DFT	103	Technical Drafting	2	9	5
			18	11	22
FALL QUARTER					
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
			11	18	18

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
DFT	205	Design Drafting I	2	9	5
DFT	211	Mechanisms	3	2	4
MEC	211	Physical Metallurgy	3	3	4
WLD	101	Welding Practices	3	0	3
Elective			3	0	3
			14	14	19
SPRING QUARTER					
DFT	206	Design Drafting II	2	9	5
MEC	235	Hydraulics and Pneumatics	3	3	4
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			14	12	18
		TOTAL HOURS	86	88	119

ELECTRONICS ENGINEERING TECHNOLOGY (T-045)

CAREER INFORMATION

The electronic engineering technician is required to trouble-shoot and repair all types of electronic equipment including communications equipment, consumer electronic equipment, and industrial electronic equipment. Although the technician generally specializes in one type of equipment, the base of knowledge is broad enough to troubleshoot and repair different types of equipment in a variety of environments. The electronic engineering technician may also be required to participate in design and development of electronic components and controls.

A technician's secondary duties include using hand tools, using test equipment, ordering and stocking spare parts, training operators, evaluating new and prospective equipment, communicating with subordinates and superiors, keeping records, and possibly most important, keeping abreast with changing technologies through self-study.

A reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	111	Algebra	5	0	5
PHY	101	Physics: Work, Energy, Power	3	2	4
CHM	101	General Chemistry I	3	3	4
ENG	101	Grammar and Composition	2	3	3
			13	8	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
MAT	112	Trigonometry	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
ENG	102	English Composition	3	3	4
ELC	112	Alternating and Direct Current	2	3	3
			13	8	16
SPRING QUARTER					
MAT	113	Analytical Geometry and Calculus I	5	0	5
ENG	104	Report Writing	3	0	3
DFT	119	Blueprint Reading: Electrical	0	3	1
ELN	124	Electronics' Fundamentals	2	4	4
Elective		(Humanities)	3	0	3
			13	7	16
FALL QUARTER					
ELN	134	Intermediate Electronics	2	4	4
ELC	119	Industrial Electronic Control	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Math)*	5	0	5
			12	10	16
WINTER QUARTER					
ELN	224	Advanced Electronics	2	4	4
ELN	234	Digital Electronics	2	4	4
ELN	254	Electronic Instrumentation	2	4	4
Elective		(Math)**	3	0	3
			9	12	15
SPRING QUARTER					
ELN	238	Microprocessors	2	4	4
ELN	270	Consumer Electronics	2	4	4
ELN	274	Industrial Electronics	2	4	4
ELN	280	Electronic Trouble-shooting	2	4	4
ELN	260	Communication Electronics	2	4	4
			10	20	20
		TOTAL HOURS	70	65	99

*Mat 201 (Analytical Geometry and Calculus II) suggested.

**MAT 202 (Analytical Geometry and Calculus III) suggested.

FOOD SERVICE MANAGEMENT (T-074)

CAREER INFORMATION

The food service management curriculum is designed for the training of students in the supervisory or "middle management" level in food service with particular emphasis on institutional food service. This program offers a second-year option in supervision-management to the student completing the entire curriculum and a one-year option in food preparation specialist to the student completing the first-year requirements.

In addition to students having a sound foundation in the science of food preparation and service, they will develop an understanding of the basic science and principles of quantity food preparation, an appreciation of accuracy and the use of standards in production, an increased knowledge of the space and equipment requirements for quantity food production, and service operations of various types, as well as some ability to evaluate the effectiveness of the operation of a food service department. Also, students will study pricing and cost controls, principles of nutrition as applied to institutional menu planning, safe methods of work performance, and sanitation and hygiene in a food service operation.

The career opportunities available to a graduate of the food service management curriculum are executive chef, food science supervisor, food service manager, food buyer, unit manager, and chef-manager. Employment opportunities are available in hospitals, nursing homes, child care centers, college and university food services, school food services, industrial cafeterias, private clubs, airline food services, food processing manufacturers, food service control companies, and commercial restaurants.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
FSO	101	Orientation to Food Service	1	0	1
FSO	102	Food Preparation I	3	3	4
FSO	103	Equipment Layout and Design	3	0	3
FSO	104	Sanitation and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	201	Introduction to Sociology	3	0	3
			16	3	17
WINTER QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	120	Accounting I	3	2	4
FSO	106	Nutrition and Menu Planning I	3	0	3
FSO	107	Baking I	3	3	4
FSO	112	Food Preparation II	3	3	4
			14	11	18

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	233	Personnel Management	3	0	3
FSO	109	Production Management	3	0	3
FSO	122	Food Preparation III	3	3	4
FSO	117	Baking II	3	3	4
Elective			3	0	3
			18	6	20
SUMMER QUARTER					
FSO	110	Field Work	0	24	8
FSO	111	Seminar	2	0	2
			2	24	10
FALL QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
FSO	202	Food Preparation IV	3	3	4
FSO	203	Organization and Management	3	0	3
FSO	204	Food Purchasing and Cost Control	3	0	3
			17	3	18
WINTER QUARTER					
ENG	104	Report Writing	3	0	3
FSO	205	Nutrition and Menu Planning II	3	0	3
FSO	206	Financial Management	3	0	3
FSO	212	Food Preparation V	3	3	4
BUS	272	Principles of Supervision	3	0	3
BUS	195	Small Business Management	3	0	3
			18	3	19
SPRING QUARTER					
FSO	210	Field Work	0	24	8
FSO	211	Seminar	2	0	2
			2	24	10
SUMMER QUARTER					
FSO	207	Food Merchandising	3	0	3
Elective			3	0	3
			6	0	6
		TOTAL HOURS	93	74	118

FURNITURE PRODUCTION TECHNOLOGY (T-075)

(DEGREE OPTION)

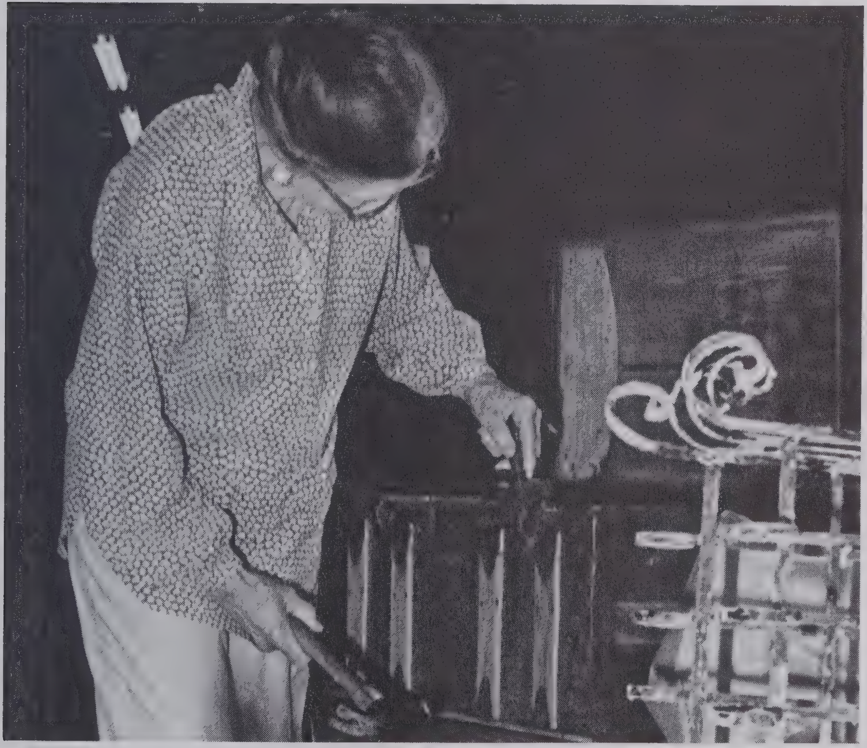
CAREER INFORMATION

The graduate of this program may serve in many areas of the local furniture industry. These areas would include assistance to the plant manager, methods improvement, quality control inspection, cost estimator product engineer training, production control training, material control supervision, department supervision, production scheduling and control, material testing, employee training, and industry safety.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT-T	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	2	0	2
FUR	108	Production Equipment I	4	0	4
			13	9	16
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	109	Production Equipment II	4	0	4
FUR	102	Construction and Billing I	1	3	2
FUR	112	Routing, Scheduling and Processing	2	2	3
			9	11	13
SPRING QUARTER					
FUR	103	Construction and Billing II	1	3	2
FUR	106	Abrasive Materials and Glues	2	2	3
ISC	203	Motion Study	2	2	3
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	104	English Composition	3	0	3
DFT	103F	Technical Drafting	2	6	4
BUS	101	Introduction to Business	5	0	5
SPH	101	Fundamentals of Speech	3	0	3
			13	6	15
WINTER QUARTER					
BUS	272	Principles of Supervision	3	0	3
ENG	104	Report Writing	3	0	3
ECO	201	Principles of Economics I	3	0	3
Elective			3	0	3
			12	0	12
SPRING QUARTER					
ISC	204	Value Analysis	3	0	3
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	84	38	98



INDUSTRIAL MAINTENANCE ENGINEER (T-119)

(DEGREE OPTION)

This program continues on from the one-year diploma program for industrial maintenance engineers to include a second year of study. A concentration of degree-related courses as well as advanced industrial maintenance courses are added in the final three quarters.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT-T	101	Technical Mathematics	5	0	5
RDG	093	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	101	Basic Electricity	2	6	4
MEC	101	Machine Processes	2	4	4
ISC	102	Industrial Saftey	3	0	3
			13	16	19
WINTER QUARTER					
DFT	119	Blueprint Reading: Electrical	0	3	1
MAT-T	102	Technical Mathematics (Algebra)	5	0	5
ELC	102	Intermediate Electricity	2	6	4
MEC	102	Machine Processes	2	4	4
WLD	120	Welding, Oyacetylene	2	6	4
			11	19	18
SPRING QUARTER					
MEC	235	Hydraulics and Pneumatics	3	3	4
IMT	101	Basic Materials Handling	2	6	4
SPH	101	Fundamentals of Speech	3	0	3
WLD	121	Arc Welding	2	6	4
			10	15	15
SUMMER QUARTER					
MEC	236	Intermediate Hydraulics and Pneumatics	2	6	4
MEC	265	Bearings and Fasteners	2	6	4
AHR	101	Air Conditioning and Refrigeration	3	3	4
PLU	101	Basic Plumbing and Pipefitting	2	6	4
			9	21	16

FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
IMT	201	Maintenance Applications I	2	6	4
ELN	119	Industrial Electronics Fundamentals	2	6	4
MEC	114	Shop Practices	1	6	3
			7	21	14
WINTER QUARTER					
ENG	102	Composition	3	0	3
PSY	206	Interpersonal Skills	3	0	3
IMT	202	Maintenance Applications II	2	6	4
Elective		(Humanities)	3	0	3
			11	6	13
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	272	Principles of Supervision	3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	73	98	107

MEDICAL SONOGRAPHY (T-180)

CAREER INFORMATION

The medical sonography curricula offers education options for medical sonographers by providing a one-year diploma program and a two-year degree program in medical sonography involving abdomen and OB-GYN.

The graduate of either the diploma or degree program will perform the same tasks in the workplace. The medical sonographer specializes in the application of high frequency sound waves to image internal body structures. Medical sonographers must have a thorough knowledge of cross-sectional anatomy of the abdomen and female pelvis. By understanding the normal anatomy, sonographers can recognize abnormalities and assist the physician in diagnosing them. Obstetrical sonographers know the stages of fetal development and problems that may occur during these stages. In most instances the sonographer, independent of the physician, is responsible for obtaining sonograms that are adequate to provide the physician with a diagnosis.

In addition to anatomy, the medical sonographer must communicate effectively with patients in order to obtain pertinent history relative to the examination. These professionals must also provide quality patient care. The medical sonographer must have an adequate knowledge of sonic physics as well as an understanding of equipment used in each procedure.

Graduates of the diploma are eligible to apply for admission to the American Registry of Diagnostic Medical Sonographers for examinations in physics, abdomen, and OB-GYN. The diploma program will be available only to graduates of AMA recognized two-year allied health occupations. At this time, graduates of the degree program will be required to be actively employed in the field of medical sonography an additional year after graduation to qualify for examination by the American Registry of Diagnostic Medical Sonographers. The college is pursuing accreditation by the Joint Review Committee on Education in Diagnostic Medical Sonography. When accreditation is granted, the student will be eligible for certification upon graduation.

The field of medical sonography is expanding rapidly. Various opportunities await sonographers including staff and department head positions in hospitals. Opportunities are also available in clinics and private doctor's offices and in colleges and universities as instructors.

Individuals desiring a career in sonography must be a high school graduate with an interest in anatomy and biology. Individuals in other health fields may find sonography rewarding. For specific entrance requirements, contact the Director of Admissions.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
SON	101	Introduction to Medical Sonography	1	2	2
HEA	103	Medical Terminology	0	3	1
HEA	100	CPR and Multimedia First Aid	0	2	1
			1	7	4
FALL QUARTER					
BIO	105	Basic Life Science	4	2	5
SON	102	Ultrasound Physics I	3	2	4
SON	103	Ultrasound Clinical Lab I	0	18	6
SON	104	Ultrasound Principles I	2	2	3
RDT	112	Basic Patient Care	1	4	3
			10	28	21
WINTER QUARTER					
BIO	108	Human Anatomy and Physiology I	3	2	4
SON	105	Ultrasound Principles II	2	2	3
SON	106	Ultrasound Clinical Lab II	0	24	0
SON	107	Ultrasound Physics II	3	2	4
			8	30	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
SON	108	Ultrasound Principles III	2	2	3
SON	109	Ultrasound Clinical Lab III	0	24	8
PSY	201	General Psychology	3	0	3
			8	28	18
SUMMER QUARTER					
SON	110	Ultrasound Principles IV	2	2	3
SON	111	Ultrasound Clinical Lab IV	0	24	8
HEA	200	Allied Health Management Procedures	3	0	3
ENG	101	Grammar and Composition	2	3	3
			7	29	17
FALL QUARTER					
SON	112	Ultrasound Clinical Lab V	0	27	9
ENG	102	English Composition	3	3	3
SOC	201	Introduction to Sociology	3	0	3
Elective			3	0	3
			9	27	18
WINTER QUARTER					
SON	113	Ultrasound Clinical Lab VI	0	27	9
ENG	104	Report Writing	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
Elective			3	0	3
			9	27	18
SPRING QUARTER					
SON	114	Ultrasound Clinical Lab VII	0	36	12
SUMMER QUARTER					
SON	115	Ultrasound Clinical Lab VIII	0	36	12
		TOTAL HOURS	52	248	139

NUCLEAR MEDICINE TECHNOLOGY (T-104)

CAREER INFORMATION

Since the field of nuclear medicine is developing so rapidly, there is a growing demand for well-trained, highly motivated, adaptable nuclear medicine technologists.

Manpower studies indicate the need to train additional technologists in the field each year, and this number may be even larger with the continuing development and application of nuclear medicine technology. The major trends in nuclear medicine which may affect the number of technologists needed over the next few years include the use of gamma cameras and computers for imaging procedures, increased number of dynamic function studies, the development of materials labeled with radionuclides with shorter half-lives, and the use of more complex radio-pharmaceuticals and more automated data-handling facilities.

With the increasing demand for nuclear medicine services, opportunities are available in large and small hospitals, both public and private. In addition, the armed forces both train and employ nuclear medicine technologists. Also, the growing number of NMT training programs in hospitals, community colleges, and medical centers provide openings for instructors in nuclear medicine technology.

Two categories of students are admitted each fall. For category one (advanced students) there is the one-year certificate program. This is open to Registered Nurses, Registered Laboratory Technologists, and Registered Radiographers. The second category of students can enroll for the associate of science degree which takes a minimum of two years. These students have an interest in the medical profession but have had no formal medical training.

Graduates of the nuclear medicine technology program will receive an associate in applied science degree and will be eligible to take the national registry exam. Certified radiologic technologists, associate degree nurses, and medical technologists may enter the program as advanced students for a 12-month certificate course. Advanced students must demonstrate competence in chemistry and physics.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. Students must have a "C" average in all nuclear medicine courses. For specific policies concerning the nuclear medicine program, see the student handbook or the Director of Admissions.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	101	College Math	3	0	3
NMT	101	Nuclear Med. Technology I	2	0	2
BIO	105	Basic Life Science	4	2	5
HEA	103	Medical Terminology	0	3	1
NMT	126	Clinical Practicum I	0	4	2
			11	12	16
WINTER QUARTER					
ENG	102	Composition	3	0	3
NMT	102	Nuclear Medicine Tech. II	2	0	2
PHY	107	Physics	3	2	4
BIO	108	Human Anatomy and Physiology I	3	2	4
NMT	127	Clinical Practicum II	0	12	4
MAT	102	College Math	3	0	3
			14	16	20
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
NMT	103	Nuclear Med. Tech. III	2	0	2
BIO	109	Human Anatomy and Physiology II	3	2	4
NMT	128	Clinical Practicum III	0	12	4
PSY	201	General Psychology	3	0	3
Elective		(Humanities/Social Science)	3	0	3
			14	14	19
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
NMT	104	Nuclear Med. Tech. IV	2	0	2
NMT	129	Clinical Practicum IV	0	12	4
PED	185	First Aid and Safety	3	0	3
			8	12	12
FALL QUARTER					
NMT	211	Principles of Nuclear Med. I	2	0	2
CHM	101	General Chemistry	3	3	4
NMT	255	Intro. to Radioimmunoassay	1	2	2
NMT	269	Clinical Practicum V	0	24	8
MAT	214	Statistics	5	0	5
			11	29	21

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
NMT	221	Principles of Nuclear Med. II	2	0	2
NMT	223	Radiopharmacy I	2	0	2
NMT	230	Nuclear Med. Instrumentation I	3	2	4
NMT	274	Clinical Practicum VI	0	24	8
NMT	216	Nuclear Physics	3	0	3
			10	26	19
SPRING QUARTER					
NMT	233	Radiopharmacy II	2	0	2
NMT	240	Nuclear Med. Instrumentation II	3	2	4
NMT	241	Principles of Nuclear Med. III	2	0	2
NMT	279	Clinical Practicum VII	0	24	8
			7	26	16
SUMMER QUARTER					
NMT	217	Health Physics and Radiobiology	3	0	3
NMT	251	Principles of Nuclear Med. IV	2	0	2
NMT	278	Seminar in Nuclear Medicine	0	6	2
NMT	284	Clinical Practicum VIII	0	24	8
NMT	290	Nuclear Med. Technology Review	2	0	2
			7	30	17
		TOTAL HOURS	82	165	140

NURSING—EDUCATION OPTIONS—ASSOCIATE DEGREE (T-116)

(DEGREE OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians', offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the Director of Admissions.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	6	8
NUR	102	Nutrition	3	0	3
			18	11	22
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical-Surgical Nursing I	6	0	6
NUR	105	Medical-Surgical Nursing I - Lab	0	15	5
BIO	135	Microbiology	2	2	3
			14	17	20
SPRING QUARTER					
ENG	102	English Composition	3	0	3
NUR	106	Maternal-Infant Nursing I	4	0	4
NUR	107	Maternal-Infant Nursing I - Lab	0	6	2
NUR	108	Child Health Nursing I	4	0	4
NUR	109	Child Health Nursing I - Lab	0	6	2
			11	12	15
SUMMER QUARTER					
+ENG	104	Report Writing	3	0	3
NUR	110	Medical - Surgical II	6	0	6
NUR	111	Medical - Surgical II - Lab	0	15	6
NUR	112	Seminar I	2	0	2
			11	15	16

SECOND LEVEL—REGISTERED NURSING

WINTER QUARTER					
BIO	108	Human Anatomy and Physiology I	3	2	4
NUR	200	Psychiatric Nursing	6	0	6
NUR	201	Psychiatric Nursing - Lab	0	9	3
PSY	213	Abnormal Psychology	3	0	3
*BIO	135	Microbiology	2	2	3
			14	13	19

or

BIO	108	Human Anatomy and Physiology I	3	2	4
*BIO	135	Microbiology	2	2	3
NUR	206	Medical-Surgical III	6	0	6
NUR	207	Medical-Surgical III - Lab	0	15	5
			11	19	18

SPRING QUARTER

BIO	109	Human Anatomy and Physiology II	3	2	4
NUR	202x	Maternal-Infant Health II	3	0	3
NUR	203x	Maternal-Infant Health II - Lab	0	6	2
NUR	204x	Child Health Nursing II	3	0	3
NUR	205x	Child Health Nursing II - Lab	0	6	2
			9	14	14

or

BIO	109	Human Anatomy and Physiology II	3	2	4
NUR	208	Medical-Surgical IV	6	0	6
NUR	209	Medical-Surgical IV - Lab	0	18	6
			9	20	16

SUMMER QUARTER

SOC	201	Introduction to Sociology	3	0	3
NUR	206	Medical-Surgical III	6	0	6
NUR	207	Medical-Surgical III - Lab	0	15	5
			9	15	14

or

PSY	213	Abnormal Psychology	3	0	3
SOC	201	Introduction to Sociology	3	0	3
NUR	200	Psychiatric Nursing	6	0	6
NUR	201	Psychiatric Nursing - Lab	0	9	3
			12	9	15

FALL QUARTER

NUR	208	Medical-Surgical IV	6	0	6
NUR	209	Medical-Surgical IV - Lab	0	18	6
NUR	210	Seminar II	3	0	3
			9	18	15

or

NUR	202x	Maternal-Infant Health II	3	0	3
NUR	203x	Maternal-Infant Health II - Lab	0	6	2
NUR	204x	Child Health Nursing II	3	0	3
NUR	205x	Child Health Nursing II - Lab	0	6	2
NUR	210	Seminar II	3	0	3
			9	12	13
		TOTAL HOURS	93	113	132

*For students whose Level I program did not require BIO 135.
+ENG 103 may be substituted for ENG 104.
x5½ week courses.

OCCUPATIONAL THERAPY ASSISTANT (T-142)

CAREER INFORMATION

Occupational therapy is a health profession providing services to people whose lives have been affected by impairment or pathology, such as cerebrovascular accident (stroke); arthritis; cerebral palsy; mental retardation; spinal cord injury; amputation; trauma; burns; visual, auditory, and speech disorders; or psychiatric problems. Occupational therapy serves in a variety of settings, including hospitals and clinics, rehabilitation facilties, long-term care facilities, sheltered workshops, day-care centers, schools, camps, private homes, and community agencies and centers.

The term "occupation" means being occupied in meaningful day-to-day activities including self-care, work, play, and leisure. Occupational therapy translates the ability to move into activities that are personally fulfilling.

The certified occupational therapy assistant (COTA) is one who has completed an occupational therapy assistant curriculum and passed the national certification examination by the American Occupational Therapy Association. The occupational therapy assistant program at Caldwell Community College and Technical Institute consists of six quarters for a total of 107 quarter hours to receive an A.A.S. degree. The program provides excellent opportunity for employment as well as for continuing one's education in the field of occupational therapy.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the OTA program, see the student handbook, the Director of Admissions, or the OTA coordinator.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
PSY	201	General Psychology	3	0	3
BIO	105	Basic Life Science	4	2	5
OTA	102	Occupational Therapy Theory I	3	3	4
OTA	106	Occupational Therapy Media I	1	4	3
			13	12	18
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
PSY	210	Human Growth and Development	3	0	3
PSY	206	Interpersonal Skills	3	0	3
OTA	104	Occupational Therapy Theory II	3	2	4
			15	4	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	201	Introduction to Sociology	3	0	3
OTA	105	Occupational Therapy Theory III	3	2	4
OTA	107	Medical Conditions	3	0	3
OTA	108	Occupational Therapy Media II	1	4	3
			16	6	19
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
PED	212	Kinesiology	3	2	4
OTA	103	Major Crafts and Their Application	1	4	3
OTA	202	Occupational Therapy Theory IV	3	3	4
PSY	213	Abnormal Psychology	3	0	3
Elective			3	0	3
			16	9	20
WINTER QUARTER					
PED	185	First Aid and Safety	3	0	3
REC	103	Recreation Programming	3	0	3
OTA	201	The Mature Years-Gerontology	3	2	4
OTA	203	Occupational Therapy Theory V	3	2	4
HEA	200	Allied Health Management Procedures	3	0	3
Elective			3	0	3
			18	4	20

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
OTA	204	Occupational Therapy Fieldwork II	0	40	13
SUMMER QUARTER					
OTA	205	Occupational Therapy Fieldwork II (optional internship)	0	40	13
		TOTAL HOURS	78	75	107

PARALEGAL TECHNOLOGY (T-120)

CAREER INFORMATION

The paralegal technology curriculum is designed to train individuals to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in the conduct of more complicated and difficult tasks. The legal technician should be capable of doing independent legal work under the supervision of a lawyer and search out information and court facts for the lawyer. Training will include general subjects such as English, accounting, and psychology, as well as specialized legal courses such as court systems, laws, and techniques of investigation.

Graduates of the paralegal technology program should be able to directly assist a lawyer or group of lawyers in most facets of law, but they must always work under the supervision of a lawyer. The legal technician will not be qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to the lawyer. Employment opportunities are available in public and private firms and with individual lawyers.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting I	2	3	3
BUS	115	Business Law I	3	0	3
BUS	120	Accounting I	3	2	4
LEG	101	Introduction to Paralegalism	3	0	3
			18	8	21
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	116	Business Law II	3	0	3
LEG	113	Family Law I	3	0	3
LEG	117	Torts I	3	0	3
LEG	132	Legal Research	3	6	6
LEG	214	Property I	3	0	3
			18	6	21

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
LEG	114	Family Law II	3	0	3
LEG	118	Torts II	3	0	3
LEG	135	Legal Systems and Litigaiton Preparation	5	0	5
LEG	215	Property II	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
			20	2	21
FALL QUARTER					
SPH	101	Speech	3	0	3
BUS	229	Taxes I	3	2	4
LEG	116	Contract Law	4	0	4
LEG	216	Property III	3	0	3
LEG	217	Criminal Law	3	0	3
LEG	227	Estate Management I	3	0	3
			19	2	20
WINTER QUARTER					
PSY	206	Interpersonal Skills	3	0	3
LEG	218	Civil Procedures and Discovery	4	0	4
LEG	219	Criminal Procedure	3	0	3
LEG	220	Uniform Commercial Code	3	0	3
LEG	221	Business Organizations	3	0	3
LEG	228	Estate Management II	3	0	3
			19	0	19
SPRING QUARTER					
HUM	200	South in a Changing World	3	0	3
LEG	140	Bankruptcy and Collections	3	0	3
LEG	204	Investigation	4	0	4
LEG	225	Law Office Management	3	0	3
LEG	250	Clinical Practice	1	12	5
			14	12	18
		TOTAL HOURS	108	30	120

PARALEGAL TECHNOLOGY

*Part-Time Curriculum**

BUS	102	Typewriting I	2-3-3
BUS	115	Business Law I	3-0-3
BUS	116	Business Law II	3-0-3
BUS	120	Accounting I	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
LEG	101	Introduction to Paralegalism	3-0-3
LEG	113	Family Law I	3-2-4
LEG	114	Family Law II	3-2-4
LEG	116	Contract Law	4-0-4
LEG	117	Torts	4-0-4
LEG	132	Legal Research	3-6-6
LEG	135	Legal Systems and Litigation Preparations	5-0-5
LEG	140	Bankruptcy and Collection	4-0-4
LEG	204	Investigation	5-0-5
LEG	214	Property I	3-0-3
LEG	215	Property II	3-0-3
LEG	216	Property III	3-0-3
LEG	217	Elements of Criminal Law and Procedures	4-0-4
LEG	218	Civil Procedures and Discovery	4-0-4
LEG	225	Law Office Management	3-0-3
LEG	227	Estate Management I	3-0-3
LEG	228	Estate Management II	3-0-3
LEG	250	Clinical Practice	1-12-5
MAT	110	Business Math	5-0-5
SPH	101	Fundamentals of Speech	3-0-3
Electives			12-0-12

*Usually evenings.

PUBLIC ADMINISTRATION (T-146)

Evening Program Only

CAREER INFORMATION

This career program is designed to prepare individuals for mid-management level positions in state and local governments and non-profit organizations. It is geared to prepare individuals currently employed in the public sector for advancement opportunities, as well as to provide for those persons desiring to prepare for a future career in governmental or non-profit organizational agencies.

The program is designed to enable the students to enter the public sector with skills that make them productive immediately. It provides the career employee with motivation and advantages for further advancement in the career service of local government.

The program offers the student an opportunity to begin or to continue a career in the public administration with an associate in applied science degree or to take courses for personal enrichment.

Reading level of 12.0 or RDG 101 required for graduation.

BUS	115	Business Law I	3-0-3
BUS	119	Introduction to Public Administration	3-0-3
BUS	120*	Principles of Accounting I	3-2-4
BUS	121*	Principles of Accounting II	3-2-4
BUS	122	Principles of Accounting III	3-2-4
BUS	233	Personnel Management	3-0-3
BUS	238	Problems of Public Administration	3-0-3
BUS	240	Public Finance	3-0-3
BUS	272	Principles of Supervision	3-0-3
BUS	277	Application in Public Administration I	2-6-4
BUS	278	Application in Public Administration II	2-6-4
BUS	279	Internship in Public Administration	1-18-7
BUS	282*	Governmental Accounting	3-0-3
ECO	201*	Principles of Economics I	3-0-3
ECO	202*	Principles of Economics II	3-0-3
EDP	104	Introduction to Data Processing	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
POL	201	American Federal Government	3-0-3
POL	203	Government—State and Local	3-0-3
PSY	201	General Psychology	3-0-3
PSY	202	General Psychology	3-0-3
SOC	101	Community Resources	3-0-3
SOC	201	Introduction to Sociology	3-0-3
SOC	203	Contemporary Social Issues	3-0-3
SPH	101	Fundamentals of Speech	3-0-3
Electives			12-0-12
		TOTAL HOURS	88-41-103

*In addition to the electives, proficiency credit may be substituted for up to 26 hours in the areas identified.

RADIOLOGIC TECHNOLOGY—RADIOGRAPHY (T-061)

CAREER INFORMATION

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiographers. The radiographers perform an important function in the rapidly growing branch of medicine known as radiology. Radiographers are support personnel for radiologists, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiographer should like people and be able to attend the sick and disabled with tact and sympathy. He/she should be dependable, accurate, and determined to continue with education beyond certification to keep up with new developments in the field.

The program in radiologic technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution or in programs of nuclear medicine, ultrasound and radiation therapy. Graduates of the associate in applied science degree program are eligible to take the American Registry in Radiologic Technology examination and, upon successful completion of this test, may become a registered radiographer.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. The radiologic technology program is two consecutive years of full-time study. For specific policies concerning the radiography program, see the student handbook.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDT	109	Clinical I	0	12	4
RDT	110	Introduction to Radiologic Technology	2	0	2
RDT	111	Radiographic Procedures I	5	4	7
RDT	112	Basic Patient Care	1	4	3
HEA	103	Medical Terminology	0	3	1
MAT	101	College Math	3	0	3
			11	23	20
WINTER QUARTER					
RDT	113	Radiographic Procedures II	5	4	7
RDT	114	Clinical II	0	15	5
RDT	115	Inroduction to Principles of Exposure	1	2	2
BIO	105	Basic Life Science	4	2	5
PHY	107	Physics	3	2	4
			13	25	23

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
RDT	116	Radiographic Procedures III	2	2	3
RDT	117	Clinical III	0	24	8
RDT	118	Radiographic Evaluation	1	2	2
RDT	119	Radiation Physics	3	0	3
BIO	107	Anatomy and Physiology for Radiology	3	2	4
			9	30	20
SUMMER QUARTER					
RDT	120	Imaging Modalities	1	2	2
RDT	121	Clinical IV	0	24	8
RDT	122	Radiation Protection I	2	0	2
PSY	201	General Psychology	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
			9	28	19
FALL QUARTER					
RDT	209	Clinical V	0	24	8
RDT	210	Principles of Exposure I	1	2	2
RDT	211	Radiographic Procedures IV	3	0	3
RDT	212	Special Procedures	3	0	3
ENG	101	Grammar and Composition	2	3	3
			9	29	19
WINTER QUARTER					
RDT	213	Principles of Exposure II	1	2	2
RDT	214	Clinical VI	0	24	8
RDT	215	Radiographic Procedures V	3	0	3
PED	185	First Aid and Safety	3	0	3
ENG	102	English Composition	3	0	3
			10	26	19
SPRING QUARTER					
RDT	216	Principles of Exposure III	1	2	2
RDT	217	Clinical VII	0	24	8
RDT	218	Radiographic Procedures VI	2	0	2
ENG	104	Report Writing	3	0	3
Elective		(Social Science/Humanities)	3	0	3
			9	26	18
SUMMER QUARTER					
RDT	219	Radition Protection II	2	0	2
RDT	220	Radiographic Processing and Quality Control	1	4	3
RDT	221	Clinical VIII	0	24	8
SPH	101	Fundamentals of Speech	3	0	3
			6	28	16
		TOTAL HOURS	76	215	154

RECREATION LEADERSHIP (T-083)

The recreation leadership curriculum at Caldwell Community College and Technical Institute is designed to develop recreation leaders for a variety of agencies serving the community's leisure time needs. The curriculum provides the student with the skills and background knowledge to work as an activity director of sports, arts and crafts, or to supervise and conduct programs for recreation facilities in public, private, commercial, and institutional settings.

		COURSE TITLE	CLASS	LAB	CREDIT
Required Core Recreation Courses					
REC	101	Introduction to Recreation	5	0	5
REC	102	Recreation and Special Populations	3	0	3
REC	103	Recreational Programming	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	208	Intramurals and Sports	0	6	2
REC	209	Management Field Work	0	9	3
REC	210	Field Work Recreation	0	15	5
REC	211	Seminar	1	0	1
			15	30	25

Outdoor Sports and Skills

This requirement is met by completing 18 credit hours from any of the following:

PED	101	Physical Activities for Children	2	2	3
PED	110	Archery	0	2	1
PED	111	Badminton	0	2	1
PED	113	Beginning Golf	0	3	1
PED	114	Physical Fitness	0	3	1
PED	115	Beginning Tennis	0	3	1
PED	116	Beginning Skiing	0	3	1
PED	117	Beginning Swimming	0	2	1
PED	125	Backpacking and Mountain Climbing	0	2	1
PED	132	Soccer	0	2	1
PED	133	Softball	0	2	1
PED	135	Canoeing	0	3	1
PED	141	Horseback Riding	0	2	1
PED	200	Intermediate Tennis	0	3	1
PED	201	Introduction to Physical Education	3	0	3
PED	213	Advanced Golf	0	2	1
PED	215	Advanced Tennis	0	2	1
REC	106	Camping	5	0	5
REC	203	Water Sports	1	4	3

Health and Personal Awareness

This requirement is met by completing 9 credit hours from any of the following:

EDU	203	Health and Nutrition	3	0	3
HEA	100	CPR and First Aid	0	2	1
PED	180	Personal and Community Health	3	0	3
PED	185	First Aid and Safety	3	0	3
PED	212	Kinesiology	3	2	4
PSY	206	Interpersonal Skills	3	0	3
PSY	209	Human Sexual Behavior	3	0	3
REC	202	Recreational Leadership	3	0	3

Social Science

This requirement is met by completing 15 credit hours from any of the following:

HEA	110	Gerontology I: Aging Process	3	0	3
PSY	201	General Psychology	3	0	3
PSY	202	General Psychology II	3	0	3
PSY	203	Psychology of Adolescense	3	0	3
PSY	204	Child Behavior	3	0	3
PSY	205	Personality and Adjustment	3	0	3
PSY	210	Human Growth and Development	3	0	3
PSY	213	Abnormal Psychology	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
REC	104	Rehabilitation	3	0	3
SOC	101	Community Resources	3	0	3
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems	3	0	3
SOC	205	Marriage and the Family	3	0	3

Humanities/Communications

This requirement is met by completing the following courses:

ENG	101	Gammar and Composition	2	3	3
ENG	102	English Composition	3	0	3
ENG	103	Introduction to Literature	3	0	3
or	104	Report Writing	3	0	2
RDG	101	Reading	1	3	3
SPH	101	Fundamentals of Speech	3	0	3

Cultural Arts and Skills

This requirement is met by completing 12 credit hours from any of the following:

ART	112	Beginning Drawing	2	2	3
ART	113	Basic Design and Composition	2	2	3
ART	115	Beginning Painting	2	2	3
ART	120	Ceramics I	2	2	3
ART	124	Sculpture	2	2	3
ART	127	Arts and Crafts I - Creative Crafts	1	4	3
ART	128	Arts and Crafts II	1	4	3
ART	204	Art for Children	2	2	3
DRA	201	Introduction to Drama	2	2	3
EDU	200	Movement/Drama and Play	3	2	4
MUS	101	Music Appreciation	3	0	3
MUS	105	Chorus	0	2	1
MUS	115	Voice	0	2	1
MUS	107	Piano	0	2	1
MUS	111	Guitar	0	2	1
MUS	112	Band	0	2	1
PED	118	Aerobic Dancing	0	2	1
PED	151	Modern Dance		2	1
PED	152	Folk Dancing	0	2	1
PED	154	Social Dance	0	2	1
REC	121	Social Recreation	0	0	3
REC	215	Recreational Dance	3	0	3
			1	4	3

Electives

This requirement is met by completing 3 credit hours from any 100 through 299 course.

TOTAL CREDIT HOURS 99

SECRETARIAL SCIENCE (T-030) (T-032)

CAREER INFORMATION

The graduates of this program should have a knowledge of the terminology peculiar to the major area, skill in dictation, and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

Reading level of 12.0 or RDG 101 required for graduation.

EXECUTIVE SECRETARY OPTION (T-030)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting I	2	3	3
BUS	106	Shorthand I	2	3	3
			16	9	19
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting II	2	3	3
BUS	107	Shorthand II	2	3	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law I	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Introduction to Data Systems	3	2	4
BUS	104	Typewriting III	2	3	3
BUS	108	Shorthand III	2	3	3
BUS	134	Personal Development	3	0	3
BUS	214	Secretarial Procedures	3	2	4
BUS	116	Business Law II	3	0	3
			16	10	20
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	120	Principles of Accounting I	3	2	4
BUS	205	Word Processing I	2	3	3
BUS	206E	Dictation and Transcription I	3	2	4
BUS	233	Personnel Management	3	0	3
BUS	216	Filing and Records Management	3	0	3
			17	7	20
WINTER QUARTER					
EDP	105	Microcomputer Applications	3	0	3
ENG	105	Business Correspondence	3	0	3
BUS	121	Principles of Accounting II	3	2	4
BUS	211	Word Processing II	1	5	3
PSY	206	Interpersonal Skills	3	0	3
ECO	108	Consumer Economics	3	0	3
			16	7	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
BUS	122	Principles of Accounting III	3	2	4
BUS	213	Word Processing III	1	5	3
BUS	229	Taxes I	3	2	4
BUS	271	Office Management	3	0	3
HUM	200	The South in a Changing World	3	0	3
			13	9	17
		TOTAL HOURS	90	50	110

MEDICAL SECRETARY OPTION (T-032)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting I	2	3	3
BUS	106	Shorthand I	2	3	3
BIO	115	Human Anatomy for Medical Secretaries	3	0	3
			14	9	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting II	2	3	3
BUS	107	Shorthand II	2	3	3
BUS	110	Office Machines	2	2	3
BUS	183M	Terminology and Vocabulary I	3	0	3
BUS	115	Business Law I	3	0	3
			15	8	18
SPRING QUARTER					
EDP	104	Introduction to Data Systems	3	2	4
BUS	104	Typewriting III	2	3	3
BUS	108	Shorthand III	2	3	3
BUS	214	Secretarial Procedures	3	2	4
BUS	284M	Terminology and Vocabulary II	3	0	3
			13	10	17
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	120	Principles of Accounting I	3	2	4
BUS	205	Word Processing I	2	3	3
BUS	206M	Dictation and Transcription I	3	2	4
BUS	286	Terminology and Vocabulary III	3	0	3
BUS	216	Filing and Records Management	3	0	3
			17	7	20
WINTER QUARTER					
EDP	105	Microcomputer Applications	3	0	3
ENG	105	Business Correspondence	3	0	3
BUS	121	Principles of Accounting II	3	2	4
BUS	211	Word Processing II	1	5	3
PSY	206	Interpersonal Skills	3	0	3
ECO	108	Consumer Economics	3	0	3
			16	7	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
BUS	122	Principles of Accounting III	3	2	4
BUS	134	Personal Development	3	0	3
BUS	213	Word Processing III	1	5	3
BUS	271	Office Management	3	0	3
BUS	229	Taxes I	3	2	4
HUM	200	The South in a Changing World	3	0	3
			16	9	20
		TOTAL HOURS	91	50	111

COLLEGE TRANSFER ASSOCIATE IN ARTS, ASSOCIATE IN FINE ARTS AND ASSOCIATE IN SCIENCE DEGREE PROGRAMS

The associate in arts and associate in science degree programs are designed for persons who are planning to transfer to a four-year college or university. These programs provide opportunities to complete the first two years of general college courses with some degree of specialization. Caldwell Community College and Technical Institute offers the following associate in art and associate in science degree programs:

ASSOCIATE IN ART
  PRE-ART
  PRE-BUSINESS ADMINISTRATION
  PRE-BUSINESS EDUCATION
  PRE-FURNITURE
  PRE-LIBERAL ARTS
  PRE-PHYSICAL EDUCATION
  PRE-PUBLIC ADMINISTRATION
  PRE-RECREATIONAL
  PRE-TEACHING (ELEMENTARY AND SECONDARY)
ASSOCIATE IN FINE ARTS
  MUSIC SPECIALIST
ASSOCIATE IN SCIENCE
  PRE-ENGINEERING
  PRE-SCIENCE

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which the student plans to transfer.

In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

Courses from the college-transfer programs at Caldwell Community College and Technical Institute normally transfer to four-year colleges and universities. Students planning to transfer to other schools should consult with counselors in the Student Development Office and/or the senior institutions to which transfer is being considered, because many institutions have specific requirements.

*All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

ASSOCIATE IN ARTS

Associate in arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better.

Quarter Hours Credit	
Communication Arts This requirement is met by completing English 101, 102, 103, Speech 101, and Reading 101 or an approved equivalent.	14
Humanities This requirement is met by completing 9 hours from "A" below and 6 hours from "B" below. A. Literature, or Language (Advanced Spanish 211, 212, 213) B. Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction	15
Mathematics This requirement is met by completing Math 101 and 102 or Math 111 or higher	6
Natural Science Biology, Physical Science, Physics, Chemistry, Astronomy, Physical Geography	12
Social Science This requirement is met by completing History 101, 102, 103 and 6 hours from any of the following: Economics, Regional Geography, Political Science,	15

Sociology, Anthropology, Psychology, History.	
Physical Education*	3
Electives	31
TOTAL QUARTER HOURS	96

PRE-ART

Pre-art is offered to students with talent and/or interest in the arts. Senior institutions offer majors in painting, sculpture, ceramics, commercial art, interior design, art history, studio art, and art education.

The transfer students will be adequately prepared to move into a specialized art curriculum upon completion of this pre-art program.

Pre-art majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required electives hours: Art 100, Art 102, Art 112, Art 113, Art 114, Art 115, Art 124, Art 201, Art 218, Art 203. Education 201, and Physics 101.

PRE-BUSINESS ADMINISTRATION

The curriculum for the student in business administration includes a broad foundation in liberal arts and professional courses that begins to prepare a person to meet the changing complexities of life and leadership in the business community. Upon receiving the A.A. degree, the student will find a wide range of exciting careers in the business and industrial fields. The graduate's selection of professional studies at the senior institution in business administration, economics, marketing, insurance, management, finance, industrial relations, and many other related fields will lead to meaningful managerial positions in business, government, and nonprofit organizations.

Pre-business majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 101, Business 120, Business 121, Business 122, Economics 201, Economics 202, and Economics 203.

PRE-BUSINESS EDUCATION

Business education, sometimes referred to as "distributive education," provides students the opportunity to obtain the first two years of undergraduate studies toward a baccalaureate degree in business education and a class "A" teaching certificate in basic and comprehensive teaching or distributive education teaching. In addition, the opportunity exists for students to continue in the same program for a non-teaching degree in office administration.

Pre-business education majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 102, Business 103, Business 104, Economics 201, Economics 202, Economics 203, Business 106, Business 107, Business 108, Business 120, Business 121, and Business 122.

PRE-FURNITURE

In North Carolina, the furniture industry ranks third in terms of its dollar volume of sales and second in terms of its employment. In order to meet the increasing demand for furniture products, the industry is rapidly changing toward mechanization and more sophisticated management controls.

The transfer students will be adequately prepared to move into a specialized furniture curriculum upon completion of the pre-furniture program and the awarding of the associate in arts degree.

Pre-furniture majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Furniture 102, Furniture 103, Furniture 104, Furniture 108, Furniture 109, and Furniture 201.

PRE-LIBERAL ARTS

The liberal arts curriculum has been designed to prepare the student for entrance with advanced standing to colleges and universities that grant the bachelor's degree; to assist the individual in exploring the major fields of study; and to prepare a person to meet the needs of his total environment through this study of liberal arts courses. Liberal arts courses, in their full context, open the way to help the students understand the condition of man's existence through the study of ideas and experiences in a variety of subjects and disciplines.

The A.A. degree in liberal arts provides the educational foundation for curriculum degree programs at the senior institution in art, drama, literature, modern languages, music, philosophy, journalism, speech, history, political science, psychology, sociology, anthropology, biology, chemistry, mathematics, and earth science, to mention only the main areas.

PRE-PHYSICAL EDUCATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses supported by learning experiences in a variety of activity skill courses. Introductory physical education courses in basic health, fitness, and physiological principles relating to physical activity will be emphasized.

Pre-physical education majors must fulfill all requirements for an associate of arts degree. The following courses are required as part of the required elective hours: Physical Education 201, Physical Education 180, Physical Education 185, and six physical education activity courses, including physical fitness. Biology 108 and Biology 109 (anatomy and physiology) and related recreation courses are recommended electives for pre-physical education majors, but students are advised to check transferability to senior institutions.

PRE-PUBLIC ADMINISTRATION

Caldwell Community College and Technical Institute offers a pre-public administration program to both present and future government employees, as well as to other interested citizens.

The program is designed to enable the student to enter public service with skills that make him/her productive immediately. It provides career employees with motivation and advantages to further themselves in the career service of the local government.

The program offers the student an opportunity to transfer to a senior institution and to continue a career in public service administration.

In addition to the general requirements for a student to receive the associate in arts degree, the pre-public administration major will take Business 119, Business 238, Business 240, Business 277, Business 278, Business 279, and Business 246.

PRE-RECREATION

The purpose of this program is to provide the students with a sound foundation in liberal arts courses complete with an understanding about man's recreational behavior. The pre-recreation curriculum provides educational preparation for students who will seek careers in a wide variety of business service agencies at the local, regional, state, and national levels. The senior institution offering a degree in recreation allows students to major in concentrations in municipal recreation, industrial recreation, park management, camping, ecology, therapeutic recreation, music or theatre art, and other programs dealing in youth services, corrective institutions, and recreation for the elderly.

The following hours are required to receive an associate in arts degree in pre-recreation:

	Quarter Hours Credit
Communication Arts	14
English 101, 102, 103 Reading 101 or equivalent	
Humanities	15
9 hours; Literature or Spanish 211, 212, 213 6 hours: Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction, Introduction to Drama	
Mathematics	6
Math 101, 102, 111 or higher	
Natural Science	12
Physical Science	
Social Science	15
9 hours: History 101, 102, 103 6 hours: Sociology 101, Psychology 201, 202	
Physical Education	3
Electives	31
Suggested electives: Art 127, Education 200 Education 104, Health 100, Physical Ed. 180, Physical Ed. 185, Psychology 213, Psychology 215, Recreation 101, Recreation 102, Recreation 103, Recreation 105, Recreation 106, Recreation 201, Recreation 202, Recreation 203, Recreation 208.	
TOTAL QUARTER HOURS	96

PRE-TEACHING (K-3; 4-9; 10-12)

The State of North Carolina Department of Public Instruction provides teacher certification in the following three categories: early childhood education (kindergarten through grade three); intermediate education (grade four through nine); and secondary school education (grade ten through twelve).

Students seeking certification in early childhood education (K-3), will, upon transfer, begin a specialized curriculum emphasizing appropriate values and techniques that should equip the teacher with the competency and understanding essential to teaching children in the early years. Those wishing to be certified for the intermediate grade (4-9) will, upon transfer, choose an appropriate subject or concentration in language, arts, mathematics, science, or social studies. A second area is recommended and is generally selected from the fields of library science, reading, special education, art, music, or physical education. Students whose major is K-3 or 4-9 are advised to take physical science. The following courses are suggested electives to be included in the required elective hours for the K-9 level: Art 204 or 127; Business 195;

Education 101; Education 200; Education 201; Education 202; Education 203; Education 220; Education 221; History 201; History 202; History 203; Physical Education 101; Physical Education 185; and Speech 100. Students seeking certification in mathematics or science must complete the requirements for the associate in science degree.

ASSOCIATE IN FINE ARTS

Associate in fine arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better.

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, 103, Reading 101 or equivalent.	11
Humanities This requirement is met by completing 6 hours in literature to be selected from: ENG 201, 202, 203, 204, 205, 206 and 6 hours in modern language, religion, music, art appreciation, or philosophy.	12
Mathematics This requirement is met by completing 6 hours in mathematics: Math 101, 102, Math 111, 112.	6
Social Science This requirement is met by completing 9 hours in history: History 101, 102, 103.	9
Physical Education This requirement is met by completing 3 hours in physical education.	3
Electives	3
Professional Program This requirement is met by taking 52 hours in the specialist degree program.	52
TOTAL QUARTER HOURS	96

MUSIC SPECIALIST

The music specialist degree program is intended to provide students with general education requirements for the associate degree in fine arts, to prepare students for junior-level entry into college or conservatory music programs, and to provide students with opportunities to participate in and enjoy musical activities.

Students wishing to enter the program will take placement tests in music, English, and mathematics. Music courses cover the history of music, fundamentals of sightsinging, eartraining and harmony, and small and large performing groups in instrumental and vocal areas of study.

Students wishing to take music courses for electives or enrichment are encouraged to do so, provided prerequisites for given courses are satisfied. Music courses required for music majors are as follows:Music 217, 24 hours; Music 124, 125, 126; Music 224, 225, 226; Music 107, 6 hours or until proficiency is attained; Music 204, 205, 206; Music 121, 6 hours; Music 105, 6 hours; Music 113, 6 hours; and Music 127. Electives may include Music 120, 106, 227, or other music courses numbered 100 to 299. Approval must be secured from music advisor.

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better.

	Quarter Hours Credit
Communication Arts	11
This requirement is met by completing English 101, 102, and 103, and Reading 101 or an equivalent.	
Humanities	9
This requirement is met by completing 9 hours in Literature, Music Appreciation, Art History, Religion, Studies in Fiction, Humanities, or Philosophy.	
Mathematics	15
This requirement is met by completing 15 hours from courses numbered 113 or higher. (Courses numbered below 113 may be taken for elective credit.)	
Natural Science	24
This requirement is met by completing 3 quarters of two of the following sciences: Biology, Physical Science, Physics, or Chemistry.	
Social Science	12
This requirement is met by completing 6 hours in History and 6 hours in Economics, Regional Geography, Political Science, Psychology, Sociology, Anthropology, or History.	
Physical Education*	3
Electives	22
TOTAL QUARTER HOURS	96

PRE-ENGINEERING

The pre-engineering program is designed to prepare students to continue studies toward the baccalaureate degree in engineering at senior institutions. In view of the emphasis on mathematics and sciences, students who decide upon this program should possess high academic potential and should have demonstrated above average mathematical ability.

Students contemplating an engineering career should contact the school of engineering of their choice in order to obtain additional information as to degree requirements. If possible, applicants seeking a degree in engineering at the senior institution should plan to enter summer school to make up required technical courses missed during the first two years.

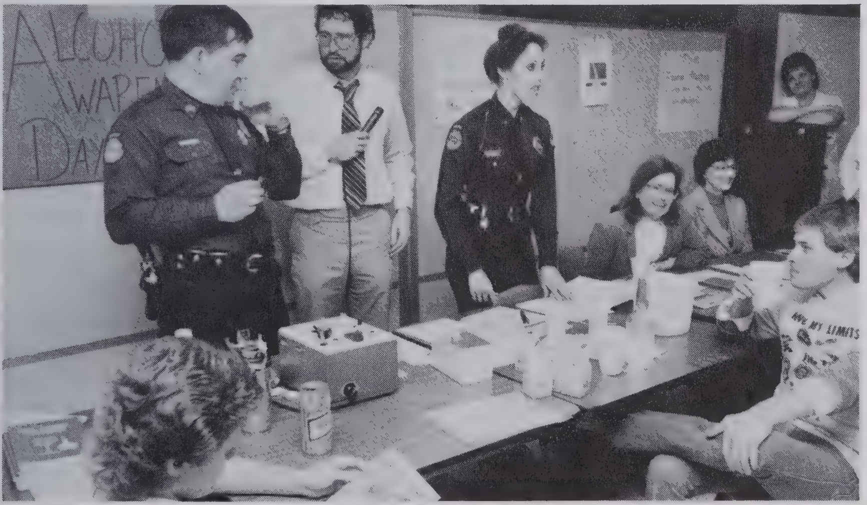
Careers in engineering offer vast opportunities in the business and industrial world. Degrees generally offered in schools of engineering consist of aerospace, chemical, civil, electrical, engineering mechanics, industrial, mechanical and nuclear, in addition to many other engineering options.

Pre-engineering majors must fulfill all requirements for the associate in science degree. The following courses are suggested electives to be included in the required elective hours: Engineering 101, Engineering 102, and Data Processing 125.

PRE-SCIENCE

The pre-science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science and mathematics. The courses are chosen with the student in mind who seeks to obtain a sound education in mathematics and the physical sciences with a wide variety of major fields of interest.

The main objective of this program is to prepare future leaders in the field of science ranging from teaching in higher education to the research specialist. Candidates for the associate in science degree in pre-science must meet all requirements for the degree.



COURSE DESCRIPTIONS

GENERAL COURSE DESCRIPTIONS SPECIAL CODING SYSTEM

EF	**Course will be offered EARLY FALL QUARTER**
F	**Course will be offered FALL QUARTER**
W	**Course will be offered WINTER QUARTER**
S	**Course will be offered SPRING QUARTER**
SS	**Course will be offered SUMMER QUARTER**
D	**Course will be offered when sufficient students and instructor are available.**
N	**Designates a NURSING course.**
E	**Designates an EXECUTIVE SECRETARY course.**
M	**Designates a MEDICAL SECRETARY course.**

Some numbers with 3 digits represent college transfer courses.
Some numbers with 3 digits represents two-year occupational courses.
Numbers with a "T" and 3 digits represent some two-year occupational courses.
Numbers with 4 digits represent one-year occupational courses.
Students should check with senior colleges of their choice for the transferability of courses.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hours Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours and lab hours. For example:

	Class	Lab	Quarter Hours Credit
ART 120 Ceramics I	2	2	3

Two class hours plus two lab hours equal four contact hours. Where no prerequisite is listed, none is required.

AIR CONDITIONING

AHR 101 Air Conditioning and Refrigeration 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101 Automotive Air Conditioning 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101A (Part-time) 3 0 3

AHR 1101B (Part-time) 0 3 1

ANTHROPOLOGY

ANT 201 Introductory Anthropology 3 0 3

An overview of the field of anthropology. Includes physical evolution of mankind, biological variation within and between human populations, historical development of cultures, and cultural dynamics viewed analytically and comparatively. (D)

ANT 202 Cultural Anthropology 3 0 3

The science of the enculturation of man. Includes ethnography, ethnology, inter-relationships between peoples and their environments, social anthropology, and lingustics. Prerequisite: ANT 201. (D)

ART

ART 102 Art History 3 0 3

An historical survey of painting, sculpture, and architecture from the ancients through the twentieth century. (F/W/S/SS)

ART 103 Art Introduction 3 0 3

An introductory study of fundamental elements and principles of creative artistic expression with an emphasis on composition, design, shape, value, styles, and movements. (D)

ART 112 Beginning Drawing 2 2 3

A study of rudimentary drawing techniques with an emphasis on design and spatial relations in line, texture, value, and volume. (D)

ART 113 Basic Design and Composition 2 2 3

A study of art elements, concepts, media, and principles of organization with a special emphasis on developing competencies in the art process. (D)

ART 114 Intermediate Design and Composition 2 2 3

A continued study of ART 113 with a special emphasis on expanding skills in the arts process through exploration with the art elements, concepts, media, and principles of organization. (D)

ART 115 Beginning Painting 2 2 3

A study of painting materials, techniques, form relations, and color through acrylics, watercolors, and mixed media with an emphasis on developing multiple means of perceiving perspective, tones, periphery, size relations, expansion, linear, chiaroscuro, and skills to render these perceptions. (D)

ART 120 Ceramics I 2 2 3

A study of clay mixing, glazing, and firing with an emphasis on wheel throwing and hand-building techniques. (D)

ART 124 Sculpture 2 2 3

A study in principles of sculpture with an emphasis on studio instruction through modeling, casting, constructing, and carving from studies of nature and the human figure. (D)

ART 127 Arts and Crafts I 1 4 3

A study of theories and concepts in structuring two and three dimensional forms with an emphasis on basic application through use of various materials such as flower construction, candle making, decoupage, ceramics, and book printing. (W)

ART 128 Arts and Crafts II 1 4 3

A study in designing three dimensional forms with an emphasis on leather crafts, copper tooling, and macrame. (D)

ART 129 Arts and Crafts III 1 4 3

A study of advanced problems of structuring three dimensional forms with an emphasis on individual expression in leather crafts, macrame, and hand-made pottery. (D)

ART 201 Constructive Design in Plastic 2 2 3

A study of plastic media foundation with an emphasis on creative synthesis of plastic design concepts. (D)

ART 202 Constructive Design in Fabric 2 2 3

A study of basics in fiber construction. (D)

ART 203 Constructive Design in Alloys 2 2 3

An introductory study of alloys and related media. (D)

ART 204 Art for Children 2 2 3

A study of art for young children focusing on theory, methodology, materials, usage, and specific art activities appropriate for the young child. (D)

ART 218 Print-making 2 2 3

An introductory study of basic print-making processes including relief printing. (D)

ASTRONOMY

AST 101 Elementary Descriptive Astronomy 2 2 3

A non-mathematical descriptive study of the solar system (including the sun, moon, planets, meteors, comets), astronomical instruments and their uses, stars and star systems, nebulae, quasars, and galaxies. Laboratory topics include time latitude and longitude, tides, seasons, optics, and observations using the telescope. (S/D)

AUTOMOTIVE

AUM 1101 Automotive Mechanics I 4 12 8

A course to develop a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Includes a study of the construction and operation of components of internal combustion engines. Also covers testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing. (F)

AUM 1101A (Part-time) **2 6 4**

AUM 1101B (Part-time) **2 6 4**

AUM 1102 Automotive Mechanics II **4 12 8**

A thorough study of the electrical and fuel systems of the automobile to include battery cranking mechanism, generator, ignition, accessories, wiring, fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system are also studied. (W)

AUM 1102A (Part-time) **2 6 4**

AUM 1102B (Part-time) **2 64**

AUM 1103 Automotive Mechanics III **4 12 8**

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair, and the servicing of park brakes. Includes principles and functions of the components of automotive chassis and practical job instruction in adjusting and repairing of suspension systems. (S)

AUM 1103A (Part-time) **2 6 4**

AUM 1103B (Part-time) **2 6 4**

AUM 1104 Automotive Mechanics IV **4 12 8**

A study of the principles and functions of automotive power train systems. Includes clutches, transmission gears, torque converters, drive shaft assemblies, rear axles, and differentials. Also covers identification of troubles, servicing, and repair. (SS)

AUM 1104A (Part-time) **2 6 4**

AUM 1104B (Part-time) **2 6 4**

AUM 1105 Auto Servicing **3 9 6**

A course emphasizing the shop procedures necessary in trouble shooting the various component systems of the automobile. Includes a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: AUM 1102, AUM 1103, AHR 1101 or off-campus instruction in the auto repair environment. A minimum of one quarter previous attendance and the pre-requisites AUM 1104 and BUS 1103. (SS)

AUM 1105A (Part-time) **1 3 2**

AUM 1105B (Part-time) **1 3 2**

AUM 1105C (Part-time) **1 3 2**

PME 1121 Braking System (Truck) **2 3 3**

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate and their proper adjustment and repair. (D)

PME 1126 Small Engine Repair **2 3 3**

A course offered to train in the maintenance and overhaul of two and four-cycle engines. Students learn to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major features of the course. (D)

PME 1184 Co-op Work (Min.) 0 15 5

A full-time or part-time pre-arranged on-the-job training course. The student is placed in a garage to gain experience during the summer and by contract, verbal or written agreement, returns to the institution for the fall term. The student enrolls at the school and is supervised by the instructor. Prerequisite: three or more quarters of instruction. (SS/D)

PME 1202 Auto Electrical/Electonics 4 9 7

A thorough study of the theory and operation of various automobile electrical units and systems. Covers maintenance and testing procedures, diagnosis, and repair of all types of electrical/electronic components, especially the transistor circuits found on the modern automobile. Prerequisite: AUM 1102.

PME 1202A (Part-time) 2 6 4

PME 1202B (Part-time) 2 3 3

PME 1203 Automotive Engine Tune-up 4 9 7

A course designed to provide depth in understanding and skill in the use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units of the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate ability in diagnosing malfunctions in ignition systems, cranking motors, and charging circuits. Prerequisite: AUM 1102, DFT 1102 or equivalent work experience. (D)

PME 1203A (Part-time) 2 6 4

PME 1203B (Part-time) 2 3 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the components parts, diagnosis of malfunctioning, and proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1221 Front Suspension, Alignment, and Power Steering 1 3 2

A course covering the theory of operation, correct disassembly, and mounting of all front suspension parts on various types of automobile and light truck frames. The course will provide a thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, and rams. Includes theory and application of steering geometry, correct diagnosis of problems, use of the alignment and balancing machines, and analysis and correction of tire wearing problems, vibrations, hard steering, and pulling. Prerequisite: AUT 1123. (D)

PME 1224 Advanced Automatic Transmissions 3 12 7

A course designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, re-assembly, and testing of selected transmissions. Special emphasis is placed on principles, functions, construction, operation, servicing and "trouble-shooting" procedures, and repair of various types of automatic transmission. Prerequisite: PME 1124 or work experience. (D)

PME 1224A (Part-time) 2 6 4

PME 1224B (Part-time) 1 6 3

PME 1225 Auto Engine Trouble-shooting 2 9 5

A course in the general principles of engine trouble-shooting, including the electrical and fuel systems. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: AUM 1101 or work experience. (D)

PME 1225A (Part-time) 1 6 3

PME 1225B (Part-time) 1 3 2

PME 1226 Automobile Servicing II 2 9 5

A course emphasizing trouble-shooting and repairing the various component systems on vehicles provided for general repairs. The student is given in-depth experiences in diagnosis, testing, adjusting, repairing, and replacing component parts. Prerequisite: AUT 1125.(D)

PME 1226A (Part-time) 1 6 3

PME 1226B (Part-time) 1 3 2

PME 1227 Power Accessories 5 0 5

A course designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas, etc. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories and to enhance skills in diagnosing troubles and repairing damaged circuits. Includes application of knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience. (D)

AUB 1101 Auto Body Repair I 4 12 8

A study of the basic principles of automobile construction, design, and manufacturing. Includes a thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

AUB 1101A (Part-time) 2 6 4

AUB 1101B (Part-time) 2 6 4

AUB 1102 Auto Body Repair II 4 12 8

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders and metal working and painting.

AUB 1102A (Part-time) 2 6 4

AUB 1102B (Part-time) 2 6 4

AUB 1103 Auto Body Repair III 4 12 8

A course to develop skill in shrinking stretched metal; soldering and leading; preparing metals for painting; straightening of doors, hoods, and deck lids; fitting and aligning; painting fenders and panels; spot repairs; and complete vehicle painting. The student learns the use and application of power tools.

AUB 1103A (Part-time) 2 6 4

AUB 1103B (Part-time) 2 6 4

AUB 1104 Auto Body Repair IV 4 12 8

A general introduction to and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames, front wheel alignment, methods of removing and installing interior trim, and cutting, sewing, installing, and fitting headlinings, seat covers, and door trim panels. All phases of training are applied. The course also covers repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster.

AUB 1104A (Part-time) 2 6 4

AUB 1104B (Part-time) 2 6 4

AUB 1105 Auto Body Shop Application 3 9 6

An extensive study of topcoats and their applications, with further development in the skills of spot painting with acrylic lacquer and acrylic enamel. Includes application of overall finishes such as acrylic lacquer, acrylic enamel, synthetic enamel, and polyurethane enamel, refinishing problems, and cures. Emphasis is placed on the final job appearance, detailing, neatness, and quality of repairs. Also covers development of skills in repair order writing, estimating, customer relations, and final settlement with insurance companies. Prerequisite: AUB 1101, AUB 1102. (SS)

AUB 1105A (Part-time) 1 3 2

AUB 1105B (Part-time) 1 3 2

AUB 1105C (Part-time) 1 3 2

IMPORTED CAR OPTION

AUT 1145 Transaxle Operation and Repair 3 9 6

A study of the combination transmission and differential (transaxle) used on imported rear engine units with emphasis on diagnosing and repairing malfuntions. (D)

AUT 1146 The Air-Cooled Engine 2 6 4

A course designed to help the student understand the basic differences in liquid-cooled and the air-cooled engine. The horizontally-opposed and inline engine will be considered. (D)

AUT 1147 Imported Car Carburetion, 2 6 4

A course covering the different types of carburetion used on imported cars. Included will be fuel injection and carburetors of the downdraft, sidedraft, and updraft type. (D)

AUT 1150 Imported Car Valve Trains 2 6 4

A study of the valve systems used in imported cars. Includes conventional cam shaft and both single and double overhead cam shaft type train systems. (D)

AUT 1154 The Wankel Engine **3 9 6**

A course covering the wankel rotary engine used in some imported cars. Both the single rotor and double rotor are included. Models of the engine are disassembled and reassembled and the component parts studied. (D)

AUT 1158 Front Wheel Drive System **2 6 4**

A study of the systems used in many imported cars to provide front wheel drive. Includes a study of constant velocity universal joints and specialized differentials. (D)

BIOLOGY

BIO 101 General Biology **3 3 4**

An introduction to the biological concepts, including a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat.(F/SS)

BIO 102 General Biology **3 3 4**

A continuation of BIO 101, including a study of various plant groups approached from the point of structure, function, and habitat. Prerequisite: BIO 101. (W/SS)

BIO 103 General Biology **3 3 4**

A continuation of BIO 102 with emphasis on specific concepts such as genetics and evolution. Prerequisite: BIO 102. (S/SS)

BIO 105 Basic Life Science **4 2 5**

A study of the normal structure and related functioning of the human body which is identified as a living organism composed of living cells, tissues, organs, and systems. The normal human body is studied as a basis for understanding variations from the normal and the human's need to maintain homeostasis. Included are the skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary and nervous systems, and the special sense organs. Elementary principles and concepts of chemistry, microbiology, and physics are presented with emphasis on the application of these principles to the relationships between structures and functions of the normal human body. Encompasses bacterial anatomy, physiology, and immunology in laboratory portions with relevant experiments to augment the student learning of body structure and function. (D)

BIO 107 Human Anatomy and Physiology for Radiology **3 2 4**

A course in the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Relevant pathophysiology is included in connection with this study. The systems covered include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. This course differs from BIO 108 only in that this course has a strong emphasis on the skeletal system with decreased emphasis on the other systems covered in this course. Prerequisite: BIO 105. (W)

BIO 108 Human Anatomy and Physiology I **3 2 4**

A course in the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Those principles of chemistry and physics which are supportive of these understandings are included along with the relevant pathophysiology. The systems covered will include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations. Prerequisite: BIO 105. (W/SS)

BIO 109 Human Anatomy and Physiology II **3 2 4**

A continuation of BIO 108 in the basic facts of human anatomy and physiology. Those principles of chemistry and physics which are supportive of these understandings are included, along with the relevant pathophysiology. The systems covered include reproductive, digestive, endocrine, integumentary, urinary, fluid, and electrolytes. Students in this course have the opportunity to work in laboratory situations. Prerequisite: BIO 105. (W/SS)

BIO 115 Human Anatomy for Medical Secretaries **3 0 3**

A general survey of human anatomy covering the reproductive, endocrine, circulatory, urinary, respiratory, nervous, digestive, skeletal, muscular, and integumentary systems. The course is designed as a preparatory course for medical terminology courses. (F)

BIO 135 Microbiology **2 2 3**

A study of microscopic units of the human body as well as microorganisms. Emphasis is placed on the etiology of pathogens with special considerations given to pathogenicity, virulence, resistance, control, and immunity. Prerequisite: BIO 105. (W/SS)

BIO 201 Botany I **3 2 4**

A study of the morphology, physiology, reproduction, and ecological relationships of nonseed producing plants. Prerequisite: BIO 103. (D)

BIO 202 Botany II **3 2 4**

A study of the morphology, physiology, reproduction, and ecological relationships of seed producing plants. Prerequisite: BIO 201. (D)

BIO 206 Invertebrate Zoology **3 2 4**

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103. (D)

BIO 207 Vertebrate Zoology **3 2 4**

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103.(D)

BIO 208 Introduction to Study of Disease **3 0 3**

A study of the general principles involved in the living body. Each organ and system of organs will be looked at closely. Points of interest for the diagnostic technologist are covered. Prerequisites: BIO 108, BIO 109. (W)

BIOMEDICAL ELECTRONICS TECHNOLOGY

BMT 201 Medical Institutions **3 0 3**

A motivational and career orientation course designed to prepare the student to enter the health care industry with some degree of general sophistication and awareness. Hospital functions and design, a brief description of most medical specialities and para-medical occupations, and the professional and social inter-relationship between these groups are covered. (F)

BMT 228 Practicum **0 39 13**

A course providing supervised work experience on a schedule satisfactory to the employer, the institution, and the student. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. Prerequisite: satisfactory completion of six quarters of the biomedical equipment technology program. (S)

BMT 244 Safety Inspections and Standards **2 4 4**

A review of biomedical instrumentation with emphasis on safety. Particular attention is given to all aspects which involve physical or biological hazards to patients or operating personnel. National, state, and local standards are reviewed and methods of implementing standards are studied. (W)

BMT 254 Biomedical Instrumentation I **2 4 4**

The first in a series of three courses of medical instrumentation. Designed to provide the student with a background on the course of the segual for a given instrument, the basis on which the measurement is made, and the use of the results as related to medical instrumentation. (SS)

BMT 264 Biomedical Instrumentation II **2 4 4**

A continuation of BMT 254. Provides an indepth analysis of the basic medical instrumentation circuits. Experiments are provided for each circuit. Prerequisite: BMT 254. (F)

BMT 271 Biomedical Instrumentation III **2 4 4**

A continuation of BMT 264. Describes the theory and operation of actual medical instruments. Experiments are provided to build, calibrate, and test medical instruments. Prerequisite: BMT 264. (W)

BMT 274 Biomedical Instrumentation: X-Ray and Nuclear Medicine **2 4 4**

A course designed to provide the technician with an understanding of the workings of the component parts of radiation producing, detecting, and measuring equipment and with the ability to maintain, repair, and adjust this equipment. Prerequisite: approval of instructor. (F)

BMT 280 Biomedical Instrumentation Trouble-shooting **2 4 4**

A course presenting basic problems involving tracking down and identifying problems frequently encountered with various types of medical instrumentation. Much time is spent developing logical trouble-shooting techniques such as backtracking and the half split rule. Any clinical or monitoring devices may be used for laboratory exercises. Mechanical as well as electronic problems are considered. Prerequisite: approval of instructor. (W)

BUSINESS EDUCATION

BUS 090 Basic Accounting **3 2 4**

A course designed to provide the student with a basic understanding of accounting. Emphasis is placed on the fundamentals of accounting in an effort to give the student a strong foundation for entry into Accounting I. Covers the basic accounting cycle of journalizing, posting, and preparation of the work sheet and financial statements, adjusting and closing entries, and the post-closing trial balance. Completion of this course does not earn credit toward the completion of a diploma or a degree. (D)

BUS 101 Introduction to Business **5 0 5**

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. (S)

BUS 102 Typewriting I **2 3 3**

An introduction to the touch-typwriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. (F/W/S/SS)

BUS 103 Typewriting II **2 3 3**

A continuation of BUS 102 with emphasis on the development of speed and accuracy with further mastery of correct typewriting techniques. These skills are applied in correspondence, tabulation, manuscripts, and business forms. Prerequisite: BUS 102 or approval of instructor. (F/W/S/SS)

BUS 104 Typewriting III **2 3 3**

A continuation of BUS 103 with emphasis on production typing and speed building. Attention is given to the student's ability to function as an expert typist, producing mailable copies. Units of production include correspondence, tabulation, manuscripts, medical reports, legal documents, accounting reports, and programs. Prerequisite: BUS 103 or the equivalent. (W/S)

BUS 106 Shorthand I **2 3 3**

A study of the principles of Gregg Shorthand, including a presentation of theory and extensive practice in reading and writing shorthand, with emphasis on phonetics, penmanship, word families, brief forms, and phrases. (F)

BUS 107 Shorthand II **2 3 3**

A continuation of the study of shorthand theory with more emphasis on speed, accuracy, fluency, and vocabulary. Includes an introduction to transcription minimum dictation rate of 60 words a minute with a minimum of 95 percent accuracy, on new material. Prerequisite: BUS 106. (F/W)

BUS 108 Shorthand III **2 3 3**

A study of theory and speed building with an emphasis on development of speed in dictation and speed accuracy in transcription. Includes an introduction to office style dictation with minimum dictation rate of 70 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 107. (W/S)

BUS 110 Office Machines **2 2 3**

A general survey of business and office machines. Students receive training in techniques, processes, operation, and application of adding machines and electronic calculators. (W/S)

BUS 111 Collecting and Reporting Information **2 2 3**

A course designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis is placed on accurate methods of collecting and presenting data in an effective method. (F)

BUS 112 Personal Finance **3 0 3**

A course covering personal and family finance, budgeting, saving, insurance, real estate, stock market, and other investment media. (D)

BUS 115 Business Law I **3 0 3**

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies. (F/W)

BUS 116 Business Law II **3 0 3**

A course including the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115. (W)

BUS 119 Introduction to Public Administration **3 0 3**

A survey of the practices and political relationships in public administration leadership, decision making, personnel, and budgetary functions within governmental agencies. Includes analysis of the role of the public administrator in contemporary government and an examination of the implementation of public policy at all levels of government with emphasis on local and municipal institutions. (F)

BUS 120 Principles of Accounting I **3 2 4**

A study of methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, and methods and practices applicable to formal organizations. (F)

BUS 121 Principles of Accounting II **3 2 4**

A continuation of the study of accounting principles and practices with emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120. (W)

BUS 122 Principles of Accounting III **3 2 4**

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, and current problems presented in accounting literature and business cases. Prerequisite: BUS 121. (S)

BUS 123 Business Finance I **3 0 3**

A study of the financing of business units as individuals, partnerships, corporations, trust. A detailed study is made of short-term, long-term, and consumer financing. (F)

BUS 124 Business Finance II **3 0 3**

An examination of financing in federal, state, and local government and the ensuing effects upon the economy, with a look at factors affecting the supply of funds and monetary and credit policies. Prerequisite: BUS 123. (W)

BUS 134 Personal Development **3 0 3**

A course designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal development. (S)

BUS 162 Fundamentals of Real Estate I **6 0 6**

An introductory course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Students will study fundamental principles and theories of real estate. Topics covered include terminology, North Carolina's licensing law, organizational structure, brokerage, contracts, leases, and ownership. (D)

BUS 163 Real Estate Law **3 0 3**

A second course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Topics include fundamental operation of real estate, the real estate industry and its relationship to financing, appraising and law, listing and closing of real estate, and building construction. Prerequisite: BUS 162 or instructor approval. (D)

BUS 164 Real Estate Financing **3 0 3**

A third course in a series of three courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Topics include fundamental operation of real estate, the real estate industry and its relationship to financing, appraising and law, listing and closing of real estate, and building construction. Upon successful completion of BUS 162, BUS 163, and BUS 164, students will have met the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Prerequisite: BUS 162 or instructor approval. (D)

BUS 165 Real Estate Brokerage Operations **3 0 3**

A fourth course in a series of four courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker's licensing examination. Topics include types of operations, requirements and considerations when establishing a brokerage firm, management, personnel, operations, recordkeeping, and financial operations. Upon successful completion of BUS 162, 163, 164 and 165, students will have met the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker's licensing examination. Prerequisite:BUS 162 or instructor approval. (D)

BUS 183M Terminology and Vocabulary I **3 0 3**

A course designed to develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. (W)

BUS 195 Small Business Management **3 0 3**

A course designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. Provides practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis is placed on organization, financing, record-keeping, and management. (F)

BUS 205 Word Processing I 2 3 3

A course emphasizing the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. The use of transcribing machines is taught with specific emphasis on the operation of word processing equipment. Prerequisite: BUS 104. (F)

BUS 206E Dictation and Transcription I 3 2 4

A course designed to develop the skill of taking dictation and transcribing at the typewriter materials appropriate to the course study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. A minimum dictation rate of 80 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Prerequisite: BUS 108. (F)

BUS 206M Dictation and Transcription I 3 2 4

A course designed to help the student learn the fundamentals of medical transcription. Medical dictation is accurately transcribed using medical dictionaries, spelling guides, and other standard reference sources. Students become familiar with the various types of medical reports, records, and acceptable initials and abbreviations for medical terminology. Prerequisite: BUS 108. (F)

BUS 207E Dictation and Transcription II 3 2 4

A course designed to help develop the accuracy, speed, and vocabulary necessary to meet the stenographic requirements of business and professional offices. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Opportunities for application of transcription skills are available through limited hours of work experience in CCC & TI's word processing center. Prerequisite: BUS 206E. (D)

BUS 207M Dictation and Transcription II 3 2 4

A course emphasizing accurate production of medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 206M. (D)

BUS 208E Dictation and Transcription III 3 2 4

A speed-building course, principally, but also with a focus on accuracy. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Limited hours of transcription experience are gained in CCC & TI's word processing center. Prerequisite: BUS 207E. (S)

BUS 208M Dictation and Transcription III 3 2 4

A course emphasizing accurate medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 207M. (D)

BUS 211 Word Processing II **1 5 3**

A course providing instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205. (W)

BUS 212 Business Machine Transcription **1 2 2**

A study and practice in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles are emphasized. Prerequisite: BUS 103. (D)

BUS 213 Word Processing **1 5 3**

A course providing advanced instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205, BUS 211. (S)

BUS 214 Secretarial Procedures **3 2 4**

A course designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. (S)

BUS 215E Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 216 Filing and Records Management **3 0 3**

A study of the fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. The students study and apply principles of alphabetic, numeric, geographic and subject filing. (F)

BUS 219 Credit Procedures **3 0 3**

A study of the principles and practices in the extension of credit. Includes collection procedures and law pertaining to credit extension and collection. (W)

BUS 220 Intermediate Accounting I **3 2 4**

A thorough treatment of the field of general accounting providing the necessary foundation for specialized studies and emphasis on financial statements, the accounting process, and current assets. Prerequisite: BUS 122. (F)

BUS 221 Intermediate Accounting II **3 2 4**

theoretical review of accounting principles with emphasis on non-current assets, liabilities, and paid-in capital. The present value concept of evaluating investment proposals is introduced. Prerequisite: BUS 220. (W)

BUS 222 Intermediate Accounting III **3 2 4**

A continued study of accounting principles with emphasis on retained earnings, financial statement analysis, correcting errors, and reporting price level change. Prerequisite: BUS 221. (S)

BUS 225 Cost Accounting **3 2 4**

A detailed study of systems of cost accounting including process, job orders, and standards costs. Usefulness of data to management is stressed. Prerequisite: BUS 121. (F)

BUS 229 Taxes I **3 2 4**

A study of the application of federal and state taxes to various businesses and business conditions including income, payroll, intangible, capital gain, and sales taxes and their uses. Prerequisite: BUS 121. (W)

BUS 230 Taxes II **3 0 3**

A study of the application of federal and state taxes to individuals, business partnerships, and corporations. Includes franchise, excise, gift, income, and inheritance taxes. Prerequisite: BUS 229. (S)

BUS 232 Sales Development **3 0 3**

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for an execution of sales demonstrations is required. (S)

BUS 233 Personnel Management **3 0 3**

A study of the principles of organization and management of personnel: procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits, and security. (F)

BUS 235 Business Management **3 0 3**

A study of the principles of business management including an overview of major functions of management such as planning, staffing, controlling, directing, and financing. Covers clarification of the decision making function versus the operating function. Includes role of management in business qualifications and requirements. Prerequisites: BUS 101, BUS 121. (S)

BUS 237 Wholesaling **3 0 3**

A study of the developments of wholesaling. Includes present day trends in the United States and functions of wholesaling. (D)

BUS 238 Problems of Public Administration **3 0 3**

An analysis of contemporary problems related to the administration of public organization. Includes problems of authority, communication, control, leadership, and responsibility. Case studies are reviewed and resource people in the profession are consulted for their knowledge and personal experience in the field. (S)

BUS 239 Marketing **5 0 5**

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. (F)

BUS 240 Public Finance **3 0 3**

A study of the fundamental principles of public finance, the economics of government expenditure and the revenue policy, the shifting and the incidence of taxation, expenditure decisions and the cost-benefit analysis for the budgeting system, and the relations of government finance to its economy. Special emphasis is directed to expenditures for the taxation for the State of North Carolina and its local government. (F)

BUS 243 Advertising 3 2 4

An examination of the role of advertising in a free economy and its place in the media of mass communications. Includes a study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Covers theory and practice in writing advertising copy for various media. (F)

BUS 245 Retailing 3 0 3

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. (D)

BUS 246 Municipal Public Relations 3 0 3

A course covering the complex areas of public opinions, public attitudes, and public information. Designed to teach all personnel to act efficiently in these areas and to make good public relations integral to administrative practice. (D)

BUS 247 Insurance 3 0 3

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. (S)

BUS 266 Budget and Record Keeping 3 0 3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 121. (D)

BUS 269 Auditing 3 2 4

An introductory course emphasizing concepts and standards of external auditing with considerable discussion of audit methodology and the judgments and decision processes inherent in audit practice. Prerequisite: BUS 122. (D)

BUS 271 Office Management 3 0 3

A study presenting the fundamental principles of office management with emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems. (S)

BUS 272 Principles of Supervision 3 0 3

An introduction to the basic responsibilities and duties of the supervisor and his/her relationship to superiors, subordinates, and associates. Emphasis is on securing an effective work force and role of the supervisor. Methods of supervision are stressed. (S)

BUS 275 Programming 3 0 3

A course designed to provide the student with the basic concepts of programming for easy mastery of any specific system with the minimum of additional instruction. The logic required in computerized problem solutions is also stressed. Flowcharts and the BASIC language are combined to help the student meet the logic and programming objectives. For non-business data systems students. Prerequisite: EDP 104. (F)

BUS 277 Application in Public Administration I **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are position classification survey, personnel policy, job specifications, performance appraisal study, employee attitude survey, employee handbook, pay plan, personnel audits, utilization of records, and suggestion of award systems. (F)

BUS 278 Application in Public Administration II **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are fiscal administration—local government budget and finance administration; economic approaches to urban problems—zoning, urban renewal, public housing, welfare problems, revenue sharing, and crime; and public finance—tax policies and taxation, budget determinations, and the budget process. (W)

BUS 279 Internship in Public Administration **1 18 7**

A course providing for participation in the activities of an administrative agency under the joint supervision of a faculty member and the agency.

BUS 282 Governmental Accounting **3 0 3**

An application of accounting principles of government and problems related to governmental appropriations and allotments, encumbrances, and fund accounting. Prerequisite: BUS 122. (W)

BUS 284M&E Terminology and Vocabulary **3 0 3**

A course placing emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: 183M. (S)

BUS 285 Cost Records and Estimates **2 0 2**

A study of cost estimation, equipment, materials and labor takeoff, and overhead cost. The advantages and limitations of prorating items of cost are considered. Prerequisite: MAT 110 or approval of instructor. (SS)

BUS 286M Terminology and Vocabulary III **3 0 3**

An advanced course placing emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: BUS 183M, BUS 284M. (F)

BUS 1101 Cost Records and Cost Estimates **2 0 2**

A survey of estimates of cost (materials, labor, overhead, etc.). Materials cost deals with price grade, costs of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. (D)

BUS 1103 Small Business Operations **3 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SS)

BUS 1105 Industrial Organizations **3 0 3**

A study of the methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Includes an introduction to the competitive system and the factors constituting product cost. (SS)

BUS 1134 Personal Development **3 0 3**

A course designed to teach the student the importance of good personality and to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in dress, make-up, hygiene, and health. (D)

INS 214 General Insurance—Part I—Introduction **2 0 2**

An introductory course which should enable the student to identify the types of risk and how to apply the risk management concept to said risks; to discuss the various types of insurance and functions of insurance companies; and to interpret the various laws and regulations affecting the insurance industry. (D)

INS 215 General Insurance—Part II—Life, Accident, Health **2 0 2**

A continuation of INS 214, this course should enable the student to discuss exposures, types, policy provisions, and practices of life, health, and accident insurance; to program life and health insurance; to interpret the regulations and laws specifically applying to life, health, and accident agents; and to describe the various social insurance plans. Prerequisite: INS 214. (D)

INS 216 General Insurance—Part III—Fire and Casualty **2 0 2**

A continuation of INS 215, this course will enable the student to discuss automobile insurance, general liability exposures and insurance, worker's compensation, commercial fire and other insurances, home owner's insurance, crime insurance, and government fire and casualty insurance. Prerequisite: INS 216. (D)

BUSINESS DATA SYSTEMS

EDP 101 Computers and Programming I (RPG) **4 4 6**

An introduction to and the study of the RPG II programming language. Prerequisite: EDP 104. (W)

EDP 102 Computers and Programming II (RPG Disk-Tape) **4 4 6**

A continuation of EDP 101 in which students learn advanced features of RPG and file organization on disk and tape. Prerequisite: EDP 101. (S)

EDP 103 Computers and Programming III (COBOL) **4 4 6**

A study of the fundamentals of the COBOL language using structured COBOL. Prerequisite: EDP 102 or instructor approval. (F)

EDP 104 Introduction to Data Systems **3 2 4**

An introduction to the fundamental concepts and operational principles of data systems. This course includes the history of computers, data representation, numbering systems, flowcharting, and an introduction to the BASIC programming language. Prerequisite: None. (F/S)

EDP 105 Microcomputer Applications **3 0 3**

A study of the general use and applications of microcomputers in business. Selected topics include inventory, accounts receivable, accounts payable and payroll data entry. Prerequisite: EDP 104. (W/S)

EDP 106 Computer Literacy **3 0 3**

A course designed to provide an overview of the field of computer science. The background and history of computers will be reviewed, along with an explanation of computer functions. Emphasis will be on computer terminology and the effects of computers on personal and professional lives. Prerequisite: None. (On demand)

EDP 107 Programming Logic **3 0 3**

A course designed to introduce programming logic or logic for data processing. Includes introduction to logical structures, logic of sets, Boolean algebra, conditional statements, and truth tables to establish logic of structured flowcharts, pseudocode, and Warnier/Orr diagrams. (F)

EDP 108 Assembler Language **2 4 4**

The study of symbolic computer languages with emphasis on a particular example of such a language. The student develops program logic and writes programs using assembler language to solve appropriate assigned problems. (D)

EDP 125 Computer Programming **2 2 3**

A course designed to help students learn to write and execute computer programs in the FORTRAN language. Computerized solutions of problems in the mathematical, scientific, and engineering areas are emphasized. (D)

EDP 204 Computers and Programming IV (COBOL Disk-Tape) **4 4 6**

A continuation of EDP 103 in which the student applies advanced procedures of file organization on disk and tape, utilizing structured COBOL and the report writer feature. Prerequisite: EDP 103 or instructor approval. (W)

EDP 208 Systems Orientation **4 4 6**

A survey of the techniques utilized in the development of information systems with emphasis on the life-cycle approach to systmes analysis. Prerequisite: EDP 204. (S)

EDP 214 Practicum I **0 15 5**

A course providing practical experience in a data systems installation. The time and location vary. Prerequisite: EDP 204 and approval of instructor. (W)

EDP 215 Practicum II **0 15 5**

An opportunity for the student to spend time in a data systems installation. Time and place vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214 and approval of instructor. (S)

EDP 217 Data Processing Project **1 8 5**

A quarter devoted to the solution of a practical case study with minimum supervision. Prerequisite: approval of instructor. (W/SS)

EDP 221 BASIC Programming Language **2 2 3**

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive BASIC. Prerequisite: EDP 101 or instructor approval.

MONOPULSE DEFIBRILLATOR

EDP 222 User/Vendor Programs **2 2 3**

A study of the documentation, application, and use of various user(;sh)-vendor supplied programs. Prerequisite: approval of department. (D)

CARPENTRY

CAR 1101 Carpentry **3 15 8**

A brief history of carpentry and present trends of the construction industry. The course involves operation, care, and safe use of carpenter's hand tools and power tools in cutting, shaping, and joining construction materials. Major topics of study include theoretical and practical application involving materials and methods of construction, building layout, preparation of site, footings and foundation, and wall construction, including form construction and erection. (D)

CAR 1102 Carpentry: Millwork and Cabinet-making **3 15 8**

A course in cabinet-making and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment is emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes are also studied. Prerequisites: CAR 1101, DFT 1110. (D)

CAR 1103 Carpentry: Framing **3 15 8**

A study of the principles and practices of frame construction beginning with the foundation sills and including floor joist, sub-floor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisites: CAR 1101, DFT 1111. (D)

(j34)CAR 1104 Carpentry: Finishing **3 18 9**

A study of exterior and interior trim and finish carpentry, completing the general carpentry program. Includes materials and methods used in finishing carpentry such as exterior cornice, door, and window trim; interior flooring; door and window facing; moldings; cornice construction; installation of hardware; and installation of built-in equipment and cabinets. Prerequisites: CAR 1103, DFT 1111. (D)

CAR 1113 Carpentry: Estimating **3 3 4**

A study of building codes and the minimum requirements for local, county, and state construction regulations. Involves safety, sanitation, mechanical equipment, and materials. Also includes a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. Prerequisites: CAR 1103, CAR 1104. (D)

CHEMISTRY

CHM 101 General Chemistry I 3 3 4

A basic course designed to provide a foundation of essential facts and underlying principles in chemistry. Fundamental concepts, chemical symbols, fundamental particles, atomic structure, use of periodic chart, and scientific measurements are covered. (F)

CHM 102 General Chemistry II 3 3 4

A continuation of CHM 101 to include a study of chemical bonding, chemical kinetics, kinetic theory of gases, solutions, chemical thermodynamics, and electrochemistry. Prerequisite: CHM 101. (W)

CHM 103 General Chemistry III 3 3 4

A continuation of CHM 102 with a study of acid-base reactions, oxidation-reducing reactions in water and the environment, air pollution, introduction to organic and biochemistry, and nuclear chemistry. Prerequisite: CHEM 102. (S)

CHM 201 Organic Chemistry 3 3 4

A study of the nature and characteristics of chemical bonds in hydrocarbons, classification of hydrocarbons, sterochemistry, resonance, tautomerism and aromaticity, chemical reactivity and molecular structure, organic reactions, and chemistry of natural products. Prerequisites: CHM 101, CHM 102, and CHM 103. (D)

CHM 202 Organic Chemistry 3 3 4

A continuation of Chemistry 201. Prerequisite: CHM 201. (D)

CHM 203 Organic Chemistry 3 3 4

A continuation of Chemistry 202. Prerequisite: CHM 202. (D)

CO-OPERATIVE EDUCATION

COE 101-112 Co-operative Education

Through the Co-operative Education Program, the student works in a position related to his program of study and/or career interest and for an employer selected and/or approved by the department chairperson. The student is supervised periodically by a faculty member. Normal credit hours for the field work part of a co-operative program are determined by dividing the average number of hours worked per week by ten. A student may receive a maximum of four credit hours during any one quarter and a maximum of twelve credit hours toward degree requirements. Prerequisite: Student must have completed 10% of courses required for a degree. (D)

COSMETOLOGY

COS 1001 Scientific Study I 4 6 6

A course for beginners in cosmetology. Includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. (F)

COS 1002 Scientific Study II **5 0 5**

A classroom study of skin, scalp, hair, nails, and their disorders. Includes salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. Prerequisite: COS 1101. (F)

COS 1003 Scientific Study III **5 0 5**

A classroom study of anatomy, manicuring, chemistry, cosmetics, facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming, and hygiene. Prerequisite: COS 1002. (F)

COS 1004 Scientific Study IV **5 0 5**

A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving, and hair shaping. Prerequisite: COS 1003. (W)

COS 1005 Cosmetologists **3 0 3**

A course focusing on public relations as it pertains to the cosmetology profession. Students must have accumulated 1200 hours previously in a cosmetology school as a prerequisite for the course. Prerequisite: COS 1004, COS 1044. (D)

COS 1006 Beauty Salon Business Operations **3 0 3**

A course designed for advanced students of cosmetology who have completed 1200 contact hours in a school of cosmetic art. The student will learn the basic problems of business operations, the types of business organizations, record keeping for a small business, financial aspects of a business, and proper physical facilities of a beauty salon. Prerequisites: COS 1004, COS 1044. (D)

COS 1011 Mannequin Practice **1 18 7**

A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care, and styling. Prerequisite: COS 1004. (W)

COS 1022 Clinical Application I **0 24 8**

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hair coloring, and hair cutting. Prerequisite: COS 1011. (S)

COS 1022A (Part-time) **0 6 2**

COS 1022B (Part-time) **0 18 6**

COS 1033 Clinical Application II **0 24 8**

A course providing continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics, facials, hair styling, hair coloring (rinses, etc.), and scalp treatments. Prerequisite: COS 1022. (SS)

COS 1033A (Part-time) **0 15 5**

COS 1033B (Part-time) **0 9 3**

COS 1044 Clinical Application III **0 24 8**

A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. Prerequisite: COS 1033. (D)

COS 1044A (Part-time) **0 3 1**

COS 1044B (Part-time) **0 21 7**

COS 1055 Chemistry Relating to Cosmetology **3 0 3**

An in-depth study of the advanced principles of chemistry as related to cosmetology. Includes definitions, descriptions, and identification through classroom study, examinations, and demonstrations on live models. Prerequisite: successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

COS 1066 Hairstyling II **1 18 7**

An in-depth study of the advanced principles of hairstyling. Includes hair fashion, advanced hair cutting, hair coloring, permanent waving techniques, and analysis. Emphasis is placed on design to include structure, balance, harmony, rhythm, and emphasis. Also consists of constructive and remedial techniques on live models. Prerequisite: successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

CREDIT FOR PRIOR LEARNING

CPL 101 Seminar on Credit For Prior Learning **1 0 1**

This seminar introduces the student to the college program which offers adults an opportunity to earn credit for knowledge and skills acquired on the job, through non collegiate courses, or through life experiences. An interview with appropriate personnel in the Student Development Office is required prior to registration. (D)

CPL 102 Seminar on Portfolio Development **2 0 2**

The portfolio is a file of information compiled by the student which articulates and defines the kinds of prior learning for which he or she is requesting. This seminar guides the student through the development of a portfolio using the process of a Learning Outline. Prerequisite: CPL 101. (D)

CPL 103 Seminar on Portfolio Development **2 0 2**

This seminar is designed for persons who need additional time to complete the portfolio. Continuation of CPL 102. Prerequisites: CPL 101, 102. (D)

DEVELOPMENTAL DISABILITIES TECHNOLOGY

DDT 101 Services to Handicapped Persons **3 2 4**

Provides an overview of the developmental disabilities service system, its history, legal mandates, laws and regulations. The developmental disabilities service network from national, state and local levels will be examined. This course also provides face-to-face experiences in a variety of areas, including community based programs, human service institutions and local human service agencies. The objectives are to give students experience in working with the developmentally disabled; to introduce the concept of normalization; and to provide exposure to residential, vocational and personal-social-academic programs. (F)

DDT 102 Normalized Community Living **3 0 3**

Presents an overview of skills necessary to perform normal life activities; including fundamental management skills for maintaining a safe, clean, healthy and economically efficient home. The course identifies critical consumer skills and money management responsibilities associated with budgeting, banking, credit and general consumer purchases. Included are analyses of community resources in areas of recreation, transportation, and related leisure activites with corresponding analysis of the individual's interests and current capabilities and matching them with the above resources. Basic information associated with first aid, fire prevention, home safety precautions and poison control is included. Prerequisites: DDT 101, PSY 215. (S)

DDT 103 Individual Assessment and Programming 3 0 3

Examines the interdisciplinary assessment of developmentally disabled persons, particularly focusing on comprehensive assessment tools; task analysis; use of assessment data in planning, writing personal goals and contracts and team meetings. Individualized habilitation, rehabilitation, education plans are included with focus on mainstreaming individuals into the community. Examinations of assessment tools utilized by various disciplines will be included. Students will participate in the development of an individualized plan for a child and an adult. (S)

DDT 104 Community Resources Utilization 3 3 4

Examines community-based programs for the handicapped which must rely on existing agencies and services in developing and implementing comprehensive plans for clients. Accordingly, persons completing this course will demonstrate both verbal and performance competencies in the areas of community resources utilization for an assigned individual client. Prerequisites: DDT 101. (S)

DDT 105 Basic Nutrition 3 0 3

The science of normal nutrition, including the study of nutrients, how they are used by the body and sources and types of food necessary for the balanced diet in developmental and ethnic variations, physiological processes of digestion, absorption and metabolism are discussed. Introduction to special diets, eating and feeding problems and techniques are included. (S)

DDT 201 Counseling I (Communication Skills) 3 2 4

A study of the purpose, structure and techniques employed in interviewing. It provides experience in learning and mastering specific skills in counseling. These skills include attending, responding, personalizing, active listening, recognizing "Grief processes," initiating and communication. Students will be introduced to interpretive processing as it relates to a client and a parent's awareness of handicapping conditions. (SS)

DDT 202 Behavior Management I (Principles) 3 2 4

Examines psychological principles of creating new desired behaviors and eliminating undesired behaviors and provides ethical and legal consideraions of behavior modification. Supervised laboratory experience will be provided. (SS)

DDT 203 Residential Development Services I 3 0 3

Acquaints the student with the range of residential options available to developmentally disabled children, adolescents, and adults, including the natural home, adoptions, foster care, group homes, specialized community residential facilities, apartment living, halfway houses, homes for the aged, family care homes and mental retardation facilities. Local state and federal regulations and licensing standards concerning safety and operation of residential facilities are examined. (SS)

DDT 204 Vocational Development Services I **3 0 3**

Examines vocational development services for developmentally disabled persons, including vocational evaluation, adjustment services, training (including public school vocational education programs), and job development and placement. The occupational outlook for developmentally disabled persons is emphasized. (SS)

DDT 205 Personal-Social-Academic Services I **3 0 3**

Exposes the student to a full range of personal, social and academic settings for the developmentally disabled, including school classrooms, adult developmental activities programs, sheltered workshops, developmental day-care-centers, early childhood intervention programs, and recreational and leisure education programs. Special focus is on teaching methodology and includes development of education objectives, task analysis and reinforcement. Opportunities to participate in the development and utilization of teaching meterials will be provided. (SS)

DDT 206 Counseling II (Problem Solving) **3 3 4**

Offers practice in the techniques of counseling, e.g. problem definition, goal setting, value clarification, alternative selection, evaluation, conflict management and resolution. The student will examine the role of family members in the habilitation of the handicapped person. The ethics of counseling, rules of confidentiality and legal considerations will be discussed. Supervised clinical experience in community facilities will be provided. Prerequisite: DDT 201. (F)

DDT 207 Behavior Management II (Practices) **3 3 4**

Offers experiences in observation behaviors, data collection and analysis, development of behavioral objectives and utilization of positive and negative reinforcers in supervised clinical practicums in a variety of settings. Prerequisite: DDT 202. (F)

DDT 208 Residential Development Services II **3 3 4**

A concentration on daily activities of direct care givers in residential facilities for the developmentally disabled. Daily activities include care and training of clients, daily management, fiscal management, home repair and maintenance, safety, record keeping, and scheduling and planning client activities. Practicum experience in a residential setting for the developmentally disabled will be provided. Prerequisite: DDT 203. (F)

DDT 209 Vocational Development Services II **3 3 4**

Covers the application, vocational adjustment training, vocational training and job placements for the developmentally disabled. Coordination and consistency with results of vocational assessments are stressed. Practicum experience in a vocational setting for the developmentally disabled will be provided. Prerequisite: DDT 204. (F)

DDT 210 Personal-Social-Academic Services II **3 3 4**

Provides direct educational experience in settings which provide personal, social and/or academic training. Emphasis is placed on training students in the utilization of evaluation results in implementing individualized habilitation plans for children and adults. Practicum experience in developmental educational, leisure or recreational settings will be provided. Prerequisite: DDT 205. (F)

DDT 211 Basic Pharmacology **3 0 3**

Students will be given general knowledge in the following areas: responsibilities of various people in medication administration, reasons drugs are used; drug sources; drug related laws and regulations; and classification of drugs (therapeutic effects, side effects, adverse reactions; and contraindications.) This course will look at those drugs most commonly used by developmentally disabled persons, particularly seizure medications. (F)

DDT 212 Behavior Management III **3 2 4**

Techniques which diminish aggressive and/or disruptive behaviors will be examined. Techniques to be taught include problem identification and strategies for amelioration of problem behaviors. Preventive intervention techniques will be part of this course to train the student in controlling and protecting the aggressive client in a non-abusive manner. (W)

DDT 213 Seminar **3 0 3**

A concentration on transitional skills from student to employee, professional and ethical development, professional goals, job applications, interviews and resumes, state merit listing, employment examinations and interpersonal relationships on the job. (W)

DDT 214 Internship - Residential, Vocational or Personal-Social-Academic Development **0 21 7**

The internship is an on-the-job field placement in a structured, supervised, residential setting or vocational development service setting, or personal-social-academic service setting in the student's elected career option. Application of principles, theories and skills from the related and specialty courses will be used to develop job competency. (W)

DRAFTING

DFT 101 Technical Drafting **2 9 5**

An introductory study of the graphic language, principles of mechanical drawing, and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project, and sectional views. (F)

DFT 101A (Part-time) **1 6 3**

DFT 101B (Part-time) **1 3 2**

DFT 101F Furniture Drafting **2 6 4**

An introduction to the field of drafting through the study of the graphic language. The student learns how to freehand letter, construct geometric figures, do freehand sketching, visualize shapes of objects, make multiview drawings, and construct sectional views. (F/W/S)

DFT 102 Technical Drafting **2 9 5**

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions, and the importance of shop processes, dimensioning, and tolerancing. Includes introduction to drawing of threads, fasteners, and springs and the execution of design and working drawings. Prerequisite: DFT 101. (W)

DFT 102A (Part-time) 1 6 3

DFT 102B (Part-time) 1 3 2

DFT 102F Furniture Drafting 2 6 4

A continuation in the study of drafting and how it relates to the furniture industry. Construction details are drawn. Includes drawing joints used in furniture construction. The student makes a variety of drawings of various pieces of furniture. (F/W/S)

DFT 103 Technical Drafting 2 9 5

A study of the practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments are studied, along with the drawing of gears, cams, and electronic diagrams and reproduction and control of drawings. Prerequisite: DFT 102. (S)

DFT 103A (Part-time) 1 6 3

DFT 103B (Part-time) 1 3 2

DFT 103F Furniture Drafting 2 6 4

A course designed to aid the student in freehand sketching for the purpose of communicating in the shop. Simple shapes are studied and drawn. The student progresses from the simple to the more complex drawings. Shading is also studied. (F/W/S)

DFT 110 Mechanics Drafting Interpretation I 1 3 2

A study in the interpretation and reading of blueprints. Includes development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, dimensioning procedures, and notes. Also includes a study of components that make up the front suspension, differential assembly, and brake assemblies. (F)

DFT 111 Mechanics Drafting Interpretation II 1 3 2

A study in interpretation and reading of schematic prints and diagrams. Includes making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Also covers learning to identify the various components of the systems by sketching and labeling parts. Provides practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 110. (W)

DFT 112 Auto Body Drafting Interpretation 1 3 2

A study in the interpretation and reading of blueprints. Includes the development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, and dimensioning procedures as applied to the auto body. (S)

DFT 113 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints. Includes information on the basic principles of the blueprint lines, dimensioning procedures, and notes. (F)

DFT 114 Blueprint Reading: Mechanical 0 3 1
A further practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketches as a means of passing on ideas, information, and processes. Prerequisite: DFT 113. (W)

DFT 115 Blueprint Reading: Mechanical 0 3 1
An advanced course in blueprint reading and sketching as related to detail and assembly used in machine shops. Includes the interpretation of drawings of complex parts and mechanisms for features of fabrications, construction, and assembly. Prerequisite: DFT 114. (S)

DFT 116 Blueprint Reading: Building Trades 0 3 1
A study of the principles of interpreting blueprints and specifications common to the building trades. Includes development of proficiency in making three-view and pictorial sketches. (D)

DFT 117 Blueprint Reading and Sketching 0 3 1
A continued study of the principles of interpreting blueprints and specifications common to the building trades. Provides practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Aims for development of proficiency in making three-view and pictorial sketches. Prerequisite: DFT 116. (D)

DFT 118 Blueprint Reading and Sketching 0 3 1
A course designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings are studied with emphasis on the plot plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work. Prerequisite: DFT 107. (D)

DFT 119 Blueprint Reading: Electrical 0 3 1
A study in interpretation of schematics, diagrams, and blueprints applicable to electrical control circuits found in industrial machinery. Sketching schematic diagrams for machinery controls using appropriate symbols and notes according to the applicable code are part of this course. (W)

DFT 120 Blueprint Reading: Welding 0 3 1
A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are included. Prerequisite: DFT 113. (W).

DFT 121 Pattern Development and Sketching 0 3 1
A continued study of welding symbols, methods used in layout of sheet steel, and sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 113. (S)

DFT 122 Blueprint Reading: Plumbing 1 3 2
A study of the principles of interpreting blueprints and specifications common to the piping trades. This course provides instructional material for

plumbing and pipefitting students who must develop the ability to interpret trade blueprints and to plan the installation of the required plumbing. (W)

DFT 123 Blueprint Reading: Plumbing **1 3 2**
A study of isometric plumbing drawings and layouts. This course includes drainage, waste, vent piping designs, and domestic water layouts. (S)

DFT 124 Estimation and Take Off Practices **0 3 1**
A study of the principles of piping estimation and take off procedures. Actual construction grade plans and specifications will be used. The student will, from various plans and specs, complete detailed fitting, hanger, fixture, equipment and piping take offs. Prerequisites: DFT 122, DFT 123. (SS)

DFT 201 Technical Drafting **3 9 6**
An introduction to structural drawings, topographical drawings and mapping, pipe drawings, welding representation, graphs, alignment charts, empirical equation, and graphical mathematics. Prerequisite: DFT 103. (F)

DFT 201A (Part-time) **2 6 4**

DFT 201B (Part-time) **1 3 2**

DFT 204 Descriptive Geometry **2 4 4**
A graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed with analytical verification where applicable. Visualization is stressed on every problem. Prerequisites: DFT 102, MAT-T 102. (F)

DFT 205 Design Drafting I **2 9 5**
An introduction to basic design in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, designdrawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Various methods of specifying materials and workmanship are an integral part of the course. Prerequisites: DFT 204, MAT-T 102, PHY 102. (W)

DFT 205A (Part-time) **1 6 3**

DFT 205B (Part-time) **1 3 2**

DFT 206 Design Drafting II **2 9 5**
A research course in solving a problem in design by consulting various manuals and periodicals and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawing, assembly and subassembly drawing, pictorial drawings, exploded assembly, patent drawings, and specifications are required as a part of the problem. Prerequisites: DFT 205, MEC 210. (S).

DFT 206A (Part-time) **1 6 3**

DFT 206B (Part-time) **1 3 2**

DFT 211 Mechanisms **3 2 4**
An examination of mathematical and drafting room solutions of problems involving the principles of machine elements. Includes a study of motions of

linkages, velocities, and acceleration of points within a link mechanism and layout methods for designing cam, belts, pulleys, gears, and gear trains. Prerequisites: DFT 201, DFT 204, MAT-T 103, PHY 106. (W)

DFT 212 Jig and Fixture Design **2 6 4**

A study of commercial standards, principles, practices, and tools of jig and fixture design. Individual projects and design work are assigned to acquaint the student with the types of jigs and fixtures and their design. Prerequisites: DFT 205, DFT 211. (D)

DFT 1207 Machine Drafting **1 6 3**

An introductory course in the use of instruments, lettering, orthographic drawings, and sections and views necessary to provide proper views. Emphasis is given to dimensioning. Cam layouts, motion diagrams, and timing are surveyed. Prerequisite: DFT 115 or approval of instructor. (D)

DFT 1216 Die Blueprint Reading **0 3 1**

A course based on industrial blueprints and standards and covering the difference between operation sheets and detailed tool drawings. Includes assembly drawings. Sketching from finished drawings to provide a better visual picture of parts is stressed. Prerequisite: DFT 1207 or approval of instructor. (D)

DRAMA

DRA 201 Introduction to Drama **2 2 3**

A survey of the basic technologies of staging plays designed to acquaint students with the techniques, arts, and sciences involved in bringing a play to an audience and to make them aware of the variety of talents, skills, and abilities necessary to produce a play. (D)

ECONOMICS

ECO 108 Consumer Economics **3 0 3**

A course designed to help the student use resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and in better understanding the economy in which he/she believes. (W)

ECO 201 Principles of Economics I **3 0 3**

A survey of basic economics. Includes the beginning of economic life, archetype preindustrial economics, the beginning of economics as a science, economic revelation, classical economics, and modern economics theory. (D)

ECO 202 Principles of Economics II **3 0 3**

A study of economic activity, monetary policy, fiscal policy, the public budget, taxation, price theory, and completion. Prerequisite: ECO 201. (W)

ECO 203 Principles of Economics III **3 0 3**

The role of non-price competition, international trade and payment, economic development, and comparative systems. Prerequisite: ECO 202. (S)

ECO 204 Industrial Relations 3 0 3

A course emphasizing the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security. Prerequisite: ECO 201. (S)

EDUCATION

EDU 101 Child Growth and Development 5 2 6

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (D)

EDU 111 Seminar and Practicum 1 4 3

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will participate in learning activities and problem-solving activities relating to children. Prerequisite: EDU 202, EDU 221 and approval of early childhood education advisor. (D)

EDU 200 Movement, Drama and Play 3 2 4

An activity course exploring the use of music and drama in recreational settings. Emphasis is on musical and dramatic activities which can be used effectively with children, adults and special groups. Practice sessions stressing the use of instruments, aids, and materials are offered. (D)

EDU 201 Introduction to Education 3 0 3

A study of education as an institution in society, its historical background, function and organization. Emphasis is placed on curriculum and instructional practices. (D)

EDU 202 Introduction to Early Childhood Education 3 0 3

A study of the recent trends in early childhood education, current education models, and educational philosophy of early childhood education. Emphasis is placed on experiences, facilities, media, and planning and implementing appropriate programs of various levels of the development of children. (D)

EDU 203 Health and Nutrition 3 0 3

A study of basic nutrition with emphasis on methods of helping young children and their families learn nutritional concepts for more healthful living. (F)

EDU 220 Language Experiences in Education 3 0 3

A course to examine the language development of children in relation to adult models and the child's early experiences. Case studies will provide opportunities to analyze problems of adult-child communication and to develop guidelines for establishing effective communication patterns with children. Exercises to develop better listening skills will be provided. Media used in reading, handwriting, spelling, and language will be examined. (D)

EDU 221 Early Childhood Methods and Materials **5 3 6**
A course to enable the student to select curriculum materials and teaching techniques appropriate for early childhood education, including specific activities for the development of the child in the areas of social science, mathematics and science. (D)

EDU 230 Seminar and Practicum **0 6 3**
A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 112. (F)

ELECTRICAL

ELC 100 Electronic Fundamentals **3 0 3**
A study of the use of AC/DC currents and circuits as they are employed in audiovisual equipment. The course will be an overview of electronics. (F)

ELC 101 Basic Electricity **2 6 4**
A course in the basic understanding and application of electricity to modern industrial machinery. Includes a study of direct current motors, motor controls and protecting devices, transformer, and the industrial applications of this equipment. (F)

ELC 102 Intermediate Electricity **2 6 4**
A continuation of the study of direct current control devices and then proceeding into the study of basic alternating current as related to industrial machinery. Emphasis will be given to electrical installation procedures such as connecting lighting, heating and machinery to electrical sources. Prerequisite: ELC 101. (W)

ELC 112 Alternating and Direct Current **2 6 4**
A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance. Includes analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. Covers fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Also includes analysis of alternating current circuits. (F/S)

ELC 113 Alternating and Direct Current Machine Controls **2 6 4**
A course providing the basic concepts of AC and DC machines and simple control circuits. Includes basic meter and test equipment reading and care. Prerequisite: ELC 112. (F)

ELC 115 National Electrical Code 3 0 3

A course providing instruction and application in the use of the current National Electrical Code and how it aids those concerned with electrical safety in understanding the scope and intent of the National Electrical Code. (S)

ELC 119 Industrial Electronic Control 2 6 4

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, as related to industries. Prerequisites: ELC 112, ELC 113. (W)

ELC 121 Electrical Trouble-Shooting 2 3 3

A training course in making electrical adjustments and related maintenance operation. Includes use of test equipment and circuit logic for fast and efficient location and repair of electrical circuits. Prerequisites: ELC 112, ELC 113, ELC 119. (S)

ELC 1112 Direct and Alternating Current 4 12 8

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Also includes an analysis of direct current circuits by Ohm's Law and Kirchhoff's Law, a study of the sources of direct current voltage potentials and fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Covers analysis of alternating current circuits. (D)

ELC 1112A (Part-time) 2 6 4

ELC 1112B (Part-time) 2 6 4

ELC 1113 Alternating Current and Direct Current and Machines and Controls 4 12 8

A study providing fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Includes instruction in the use of electrical test instruments in circuit analysis, the basic concepts of AC and DC machines and simple system controls, and an introduction to the type control used in small appliances such as thermostats and timers or sequencing switches. Prerequisites: ELC 1112, MAT 1115. (D)

ELC 1113A (Part-time) 2 6 4

ELC 1113B (Part-time) 2 6 4

ELC 1121 Electrical Machines and Control 2 2 3

An introduction to the construction, operation and utilization of direct current and alternating current machines. Covers familiarization with the various types of machine control devices. Prerequisite: ELC 1112. (D)

ELC 1122 Electrical Maintenance 3 6 5

A study of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in trouble shooting and in the identification and testing of circuits, in making mechanical adjustments, and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisites: ELC 1113, ELC 1121. (D)

ELC 1124 Residential Wiring **4 12 8**

A course providing instruction and application in blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, circuit breakers, wire sizes, branch circuits, conduits, and use of National Electrical Code regulations. Special permission may be obtained to receive credit for lab hours from supervised on-the-job situations. Prerequisites: ELC 1113. (D)

ELC 1124A (Part-time) **2 6 4**

ELC 1124B (Part-time) **2 6 4**

ELC 1125 Commercial and Industrial Wiring **4 12 8**

A study in layout, planning, and installation of wiring systems in commercial and industrial situations with emphasis upon blueprint reading and symbols, the related National Electrical Code, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Special permission may be obtained to receive credit for lab hours from supervised on-the-job situations. Prerequisite: ELC 1113. (D)

ELC 1125A (Part-time) **2 6 4**

ELC 1125B (Part-time) **2 6 4**

ELECTRONICS

ELN 119 Industrial Electronic Fundamentals **2 6 4**

A study of basic electronic devices and systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, and other basic types and systems commonly found in industry. The concentration will be on operating characteristics and trouble-shooting. Prerequisites: ELC 102 or ELC 112. (F)

ELN 124 Electronics Fundamentals **2 4 4**

A course designed to develop a thorough understanding of basic electronic theory and principles and to introduce the student to the concepts, equipment, and components necessary to this understanding. Application of principles in the laboratory is an integral part of the course. Prerequisite: ELC 112. (F/W)

ELN 134 Intermediate Electronics **2 4 4**

A direct continuation of ELN 124. Requires students to work with individual circuits and their application. Emphasis is placed on power supplies, amplifiers, oscillators, transmitters and receivers, transmission lines antennas, switching and gating circuits, as well as the test equipment associated with the above. Identification, design and analysis, and determination of expected outputs from specific inputs of circuits are an integral part of the course. Laboratory experiments are used to substantiate theory and develop measurement techniques. Prerequisite: ELN 124. (W/S)

ELN 224 Advanced Electronics **2 4 4**
A continuation of ELN 134. Includes application of handy, rule-of-thumb approximations and simple, practical approaches to designing solid-state circuits. Students also learn how to service the solid-state and digital circuits and components in home, laboratory, and industrial systems. A significant segment of the course deals with an introduction of mircro-wave theory and measurements. Prerequisite: ELN 134. (S/SS)

ELN 234 Digital Electronics **2 4 4**
A systematic introduction to the digital circuits, the concepts, and the systems that are basic in nature. The goal is to lead the student from the simplest discrete switch devices, such as semiconductor diodes and transistors to the late highspeed integrated circuits and digital instrumentation systems. Laboratory experiments are utilized to substantiate theory. Prerequisite: ELN 224. (SS)

ELN 238 Microprocessors **2 4 4**
A general overview of microprocessors and minicomputers. Prerequisite: ELN 234. (S)

ELN 254 Electronic Instrumentation **2 4 4**
An introductory study of electronic instrumentation for measurement and control of physical variables. Course emphasis is placed on transducers used in industrial environments. Prerequisite: ELN 134. (W)

ELN 260 Communication Electronics **2 4 4**
A course to introduce the student to the basic theory of electronic circuits as used in communication. Emphasis is placed on amplitude modulation, frequency modulation, RF amplifiers, transmission lines, and antennas. Prerequisite: ELN 224. (S)

ELN 270 Consumer Electronics **2 4 4**
An introductory study of trouble-shooting and repair of consumer equipment such as television, radio stereo equipment, video equipment, and electronic games. Prerequisite: ELN 224. (S)

ELN 274 Industrial Electronics **2 4 4**
A study of the application of electronic circuits used to control industrial processes including solid-state, feedback systems, servomechanisms, correcting devices, input transducers and measuring devices. Prerequisite: ELN 224. (S)

ELN 280 Electronic Trouble-shooting **2 4 4**
A course designed to provide a guide to basic practical trouble-shooting of electronic circuits. The student will learn to systematically analyze circuits, locate faults, and repair them effectively. Prerequisite: ELN 224. (S)

ELN 1118 Industrial Electronics Funds 2 6 4

A study of basic theory, operating characteristics, and application of diodes, triodes, tetrodes, pentodes, transistors, FETS, and integrated circuits. Includes an introduction to amplifiers and solid state theory. Prerequisite: ELC 1113. (D)

ELN 1119 Industrial Electronic Controls 2 6 4

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, amplifiers controls, welding control systems, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118. (D)

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I 2 4 3

An introduction to the field of drafting in which the student begins the study of lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection, and development. The drawing of fasteners, springs, and gears; detail and assembly drawings; and tracing and reproduction methods are studied. (W)

EGR 102 Engineering Graphics II 2 4 3

An introduction to different engineering aspects by lecture-lab and student involvement. Areas covered include precision measurement as used in the machine tool industry, electronic gaging, and surveying, including an introduction to transit, tape controlled equipment, and other topics as the need arises. (S)

ENGLISH

ENG 098 Basic Grammar I 2 3 3

The study of basic English grammar with emphasis on terminology, identification of the parts of speech and their functions within sentences, and identification of clauses and phrases. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 099 Basic Grammar II 2 3 3

The study of English grammar designed to aid the student in the improvement of self-expression, both written and oral. The approach is functional with emphasis on grammar, diction, sentence, punctuation, and spelling. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 101 Grammar and Composition 2 3 3

The study of the use of the English language through the mediums of grammar and written composition. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 102 English Composition 3 0 3

The study of the English language through the medium of written composition, with emphasis on the development of the essay and the research paper. Prerequisite: ENG 101 or ENH 101. (W/SS)

ENG 103 Introduction to Literature **3 0 3**
An introduction to three genres of literature: poetry, drama, and fiction. Course is divided into three seminars, each a study of the three genres. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 101 English Honors: Composition **3 0 3**
An interpretative study of classic and current fiction, with emphasis on the development of critical thought, composition skill, and research technique. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 102 English Honors: Composition **3 0 3**
An interpretative study of poetry, with emphasis on scholarly analysis, oral readings, and composition skills. Prerequisite: ENG 101 or EHN 101 with recommendation. (D)

ENH 103 English Honors: Literary Analysis **3 0 3**
A study of the development of drama from the time of the fifth-century Greeks to the twentieth century, with emphasis on both oral and written interpretative skills. Prerequisite: ENG 102 or ENH 102 with recommendation. (D)

ENG 104 Report Writing **3 0 3**
The study of organization and techniques of modern report writing, with emphasis on developing typical reports, using writing techniques and graphic devices. Prerequisite: ENG 102 or ENH 102. (W/S/SS)

ENG 105 Business Correspondence **3 0 3**
A study of the basic techniques in writing business communications, with emphasis on the writing of clear, forceful, and psychologically sound letters and on the composing of clear and objective memos. (F/W/S/SS)

ENG 110 Studies in Fiction **3 0 3**
The study of fiction and the major philosophical concepts and social conflicts which are presented in fiction. Prerequisite: ENG 103. (D)

ENG 201 English Literature **3 0 3**
A survey of English literature from the Anglo-Saxon invasion to the Restoration Period, 449-1660. Prerequisite: ENG 103 or ENH 103. (F)

ENG 202 English Literature **3 0 3**
A continuation of ENG 201 beginning with the Restoration Period, 1660, to Accession of Victoria, 1837. Prerequisite: ENG 103 or ENH 103. (W)

ENG 203 English Literature **3 0 3**
A continuation of ENG 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or ENH 103. (S)

ENG 204 American Literature **3 0 3**
The study of American literature from the Puritan Age to the Romantic Movement. Prerequisite: ENG 103 or ENH 103. (F)

ENG 205 American Literature **3 0 3**
A continuation of ENG 204 beginning with the Romantic Movement and

extending through the Rise of Realism, with major emphasis on Poe, Emerson, Thoreau, Hawthorne, Whitman, and Melville. Prerequisites: ENG 103 or ENH 103. (W)

ENG 206 American Literature **3 0 3**
A continuation of ENG 204 and 205 beginning with the Realistic Movement and extending into the twentieth century, with major emphasis on Twain, Steinbeck, Faulkner, Hemingway, Dreiser, Sandberg, Frost, Lewis, Anderson, and Porter. Prerequisite: ENG 103 or ENH 103. (S)

ENG 209 Spanish Literature in Translation **3 0 3**
A study of the masterpieces of Spanish literature in the drama, poetry, short story, essay, and the novel. Not to satisfy the foreign language requirement. Prerequisite: ENG 103 or ENH 103. (D)

ENG 1102 Communication Skills **3 0 3**
A study of effective communication with emphasis on language usage in speaking and writing.

FOOD SERVICE MANAGEMENT

FSO 101 Orientation to Food Service **1 0 1**
An introduction to and history of food service and the outlook for the food service industry. Broad goals and specific objectives of training with an investigation of job opportunities and personal qualifications will be included.

FSO 102 Food Preparation I **3 3 4**
A study of the scientific principles of food preparation and cooking procedures, including preparation of beverages, salads, stocks, soups, sauces, and gravies.

FSO 103 Equipment Layout and Design **3 0 3**
A study of institutional equipment, its use and care. The course is designed to teach methods of simplifying work through the effective use and care of large and small equipment with emphasis on time and motion economy.

FSO 104 Sanitation and Safety **3 0 3**
A study of sanitation standards and safety procedures as related to food storage, preparation, and service.

FSO 106 Nutrition and Menu Planning I **3 0 3**
A study of the principles of nutrition using the basic four food groups and the application of these principles to the planning of nutritionally adequate diets. Students will also study other factors influencing menu planning, such as refrigeration and storage facilities; availability of seasonal foods; equipment and facilities; employee skills; eye-appealing food combinations; type of clientele; and food service.

FSO 107 Baking I **3 3 4**
An introduction to the principles and development of skills in baking.

FSO 109 Production Management 3 0 3

A study of the use of standardized recipes and portion control, worksheets, score sheets for judging food products, plan of work to improve work methods, and further emphasis on motion economy.

FSO 110 Field Work 0 24 8

Provides a practical introduction to the broad field of food service. Students will be evaluated by the instructor as to their performance and abilities with the cooperation of the dietitian, manager, and/or the owner of the food service establishment in their area of specialty.

FSO 111 Seminar 2 0 2

The purpose of this seminar is two-fold:job orientation and evaluation of job experience.

FSO 112 Food Preparation II 3 3 4

A study of the scientific principles of food preparation and cooking procedures. Emphasis will be placed on meat analysis and cutting as well as meat, poultry, fish, and shellfish cookery.

FSO 117 Baking II 3 3 4

The development of artistic skills related to cooking.

FSO 122 Food Preparation III 3 3 4

A study of the scientific principles of food preparation and cooking procedures, with emphasis on whole meal preparation. Included will be vegetable cookery, preparation of breakfast dishes, and appetizers.

FSO 202 Food Preparation IV 3 3 4

Emphasis on experimental cookery as related to quality control, study of food standards and specifications.

FSO 203 Organization and Management 3 0 3

A study of the organization structure, the application of the principles of scientific management, and the effectiveness of personnel as related to successful food service operation.

FSO 204 Food Purchasing and Cost Control 3 0 3

The study of fundamentals of sound food purchasing methods and procedures based on cost control, specifications, quantity, and storage.

FSO 205 Nutrition and Menu Planning II 3 0 3

A study of the principles of nutrition as applied to institutional menu planning including the Type A lunch, cycle menus, and modified diet planning.

FSO 206 Financial Management 3 0 3

A comprehensive study of financial management related to the food service operation, including food, labor, and equipment costs; operating and overhead expenses; personnel policies; and record keeping.

FSO 207 Food Merchandising 3 0 3

A study of food merchandising with emphasis placed on the art of food preparation and service.

FSO 210 Field Work **0 24 8**

A practical work experience in the student's choice of food services. The experience will be conducted under the direction of the instructor and with the cooperation of the employer.

FSO 211 Seminar **2 0 2**

A course designed for job orientation and overall evaluation of the work experience.

FSO 212 Food Preparation V **3 3 4**

A study of the scientific principles of food preparation and cooking procedures, including the planning and preparation of modified diets and Type A lunches.

FURNITURE

FUR 102 Construction and Billing I **1 3 2**

A course emphasizing proper construction of case goods and frame stock and including the study of basic construction theory; identification of furniture construction terms; interpretation and reading of furniture working drawing; information on blueprint lines, dimensioning, procedure, and notes; and basic knowledge of materials. (W)

FUR 103 Construction and Billing II **1 3 2**

A continuation of FUR 102 with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Effect of construction on material, machine, and routing is discussed. Prerequisite: FUR 102 or approval of instructor. (S)

FUR 104 Characteristics of Wood **2 0 2**

The study of basic structure of woods used by the furniture industry. Emphasis is placed on the characteristics that mostly affect these woods in manufacturing—moisture, kiln drying, machineability, glueing, and handling. Attention is given to veneers, particle board, and hardboard. Field trips to production plants are included. (F)

FUR 106 Abrasive Materials and Glues **2 2 3**

A study of the types and materials in adhesives and abrasives currently used by the furniture industry. The course deals with applications, procedures, and equipment. Emphasis is given to defects and corrective measures for both categories. (S)

FUR 107 Finishing Methods and Materials **2 2 3**

A study of the finishing methods and materials now used by the furniture industry—process of color, filling of pores, sealing, glazing, body coats, and rubbing. Emphasis is placed on various methods of drying. Covers advantages and disadvantages of material handling, equipment needs, spray guns, conveyors, and rubbing. (SS)

FUR 108 Production Equipment I **4 0 4**

A course dealing with operating procedure, capacities, and safety of woodworking equipment used in the rough machine. Includes laminating, finish machine areas, cutting tools, operational responsibilities, and field trips to production plants. (F)

FUR 109 Production Equipment II **4 0 4**

A continuation of FUR 108 dealing with preassemble sanding and cabinet assembly equipment. Covers special equipment for chair manufacturing, carving, and multipurpose equipment. Includes attention to material handling and department layout and field trips to production plants. Prerequisite: FUR 108. (W)

FUR 112 Routing, Scheduling, and Processing **2 2 3**

A comprehensive study of materials and methods of furniture manufacturing. Includes the flow of material through various departments and equipment as now used by industry; the study of main and alternate processes and their relation to cost, labor, waste, and time; the use of charts and the study of material properties and their relation to the work cycle. Prerequisites: FUR 104, FUR 102, FUR 108 or approval of instructor. (W)

GEOGRAPHY

GEO 201 Physical Geography **3 2 4**

A course in physical science that emphasizes world and water formations, weather, soils, vegetation, map reading, and the relation of human activity to the physical environment. Lab reports provide practical experience in dealing with above concepts. (D)

GEO 202 Regional Geography **3 0 3**

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. (D)

HEALTH

HEA 100 Cardiopulmonary Resuscitation and Multimedia First Aid **0 2 1**

A course designed to train in cardiopulmonary resuscitation and multimedia first aid procedures. Students completing both components of the course are certified by the American Red Cross. (D)

HEA 101 Orientation to Health Profession **3 0 3**

The class will be taught cooperatively with the Student Development Office and other institutional support areas. A course designed to orient and prepare students for the expectations and requirements of health programs. Special emphasis will be placed on familiarizing students with the services provided by the college to assist with their needs.

HEA 103 Medical Terminology **0 3 1**

A course designed to give an in-depth knowledge of medical terminology necessary for a career in the allied health area. (F)

HEA 110 Gerontology I: The Aging Process **3 0 3**

A course designed to provide health-related personnel and others who work with the older person in institutional, home, or community settings with a basic understanding of the physical, emotional, and social changes which the older adult must face in later life.

HEA 200 Allied Health Management Procedures **3 0 3**

A course designed for students in health care fields who have had no experience in management. Includes interpersonal relationships, communications, personnel management, and work organization. Motivation and the practical aspects of organizational planning are discussed along with problem solving techniques and the ethical aspects of management. (SS)

HEAVY TRUCK MECHANICS

HTM 1101 Truck Mechanics I **4 12 8**

A study of the power plants of heavy trucks which includes diagnostic procedures on Cummings, Detroit diesel catepillar, and other major engine brands. Engine systems studies will include fuel, cooling, lubrication, and other major components. Emphasis will be given to preventative maintenance operations on those systems. Students will learn to repair engines in the truck and how to remove, repair, and re-install these engines. (F)

HTM 1101A (Part-time) **2 6 4**

HTM 1101B (Part-time) **2 6 4**

HTM 1102 Truck Mechanics II **4 12 8**

A study of the power train of heavy trucks. Students will learn to remove, repair, and install clutches, pressure plates, clutch release bearing, transmissions (both twin and triple countershaft), differentials, and other components of heavy truck power trains. Emphasis will be given to in-truck diagnosis as well as working bench repair procedures. Prerequisite: HTM 1101.

HTM 1102A (Part-time) **2 6 4**

HTM 1102B (Part-time) **2 6 4**

HTM 1103 Truck Mechanics III **4 12 8**

A study of chasis and suspension systems of heavy trucks. Students will learn to service and repair such components as tires and wheels, steering sector boxes, king pins, bushings, brakes, springs, and other components that comprise the suspension system and chassis components not covered in HTM 1101 and HTM 1102. Emphasis will be given to preventative maintenance as well as diagnosis and repair procedures. Prerequisite: HTM 1102.

HTM 1103A (Part-time) **2 6 4**

HTM 1103B (Part-time) 2 6 4

HTM 1104 Truck Mechanics IV 4 12 8

A study of the electrical and hydraulic systems of heavy trucks. The electrical components will include diagnosis and repair of alternators, starter motors, D.C. generators, regulators, and electrical circuits that make up the electrical systems of heavy trucks. Emphasis will be given to maintenance, diagnosis, and repair of these systems. Prerequisite: HTM 1103.

HTM 1104A (Part-time) 2 6 4

HTM 1104B (Part-time) 2 6 4

HTM 1105 Truck Mechanics V 3 9 6

A course to emphasize the use of servicing procedures learned in other courses. The main component of this course will be taking tractors in for service and repair. The instructor will attempt to simulate a typical service shop in which a student might find employment. The instructor will have the final authority in deciding which jobs will be taken in as he follows established college procedures. Students will be assigned repair jobs by the instructor. Instructor authorization is required before registering for this course unless HTM 1101, 1102, and 1103 have been completed. Prerequisite: HTM 1104.

HTM 1105A (Part-time) 1 3 2

HTM 1105B (Part-time) 1 3 2

HTM 1105C (Part-time) 1 3 2

HISTORY

HIS 101 Western Civilization 3 0 3

A survey of the ancient near East, the classical civilizations of Greece and Rome, and the new religious civilizations of the Middle Ages. (F/SS)

HIS 102 Western Civilization 3 0 3

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial Revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. (W/SS)

HIS 103 Western Civilization 3 0 3

A survey of the Industrial Revolution, the European political revolts of 1830 and 1848, the political unification of Germany and Italy, World War I and its aftermath, the rise of European totalitarian states, the upsurge of nationalism in Africa and the Orient, World War II, and the Cold War Communist-Free World competitive coexistence. (S/SS)

HIS 201 American History 3 0 3

The study of the origins and development of the United States through the presidential election of 1840. (F)

HIS 202 American History 3 0 3

The study of the history of the United States covering the sectional conflict, the Civil War Reconstruction, and the Black experience in American through the 1960's.(W)

HIS 203 American History 3 0 3

The study of the history of the United States in the twentieth century. (S)

HIS 206 North Carolina History 3 0 3

A survey of events and developments occurring in the history of the state. Includes European background and early settlers; the Colonial, Antebellum, and Reconstruction periods; and the Modern period. (D)

HUMAN DEVELOPMENT

HDEV 101 Human Development 1 2 2

A course designed to give the student an orientation to college and to provide practical experiences in academic skills. The student is taught how to read and study a textbook, how to take notes and how to prepare for tests. The course also provides an introduction to self-awareness and personal assessment in relation to life planning and an introduction to career decision making.

HDEV 102 Human Potential 1 2 2

A course designed to give the student positive feedback to develop a positive self-concept, clarify values, and assess personal strengths and abilities in preparation for planning for life-time goals and the world of work. (W/S)

HDEV 103 Career Planning and Job Placement 1 0 1

The student will learn how to locate and get jobs through practical experience in preparing letters of application and resumes and in conducting himself/herself successfully in the job interview situation. Included will be an orientation to CCC & TI's Job Placement Service. This course is recommended for all students nearing graduation. (S/SS)

HUMANITIES

HUM 101 Personal and Cultural Appreciation I 4 0 4

A systematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods, with an emphasis on developing a greater appreciation and understanding of people and their culture. Prerequisite: ENG 103 or ENH 103. (D)

HUM 102 Humanities in the Twentieth Century 4 0 4

A critical study of specific selections from modern literature, art, and philosophy and their relevance to American life in the rapidly changing technological and nuclear age. Prerequisite: ENG 103 or ENH 103. (D)

HUM 200 The South in a Changing World **3 0 3**

A course designed to teach the student about 1) culture and values, 2) political systems, 3) economic systems, work and the individual, and 4) the future as these four concepts operate in America, the South, and the Appalachian mountains and foothills. The student will be encouraged to evaluate concepts and experiences in a personal way. Prerequisite: RDG 101 or proficiency. (D)

HUM 201 American Women's Studies **3 0 3**

A study of the history, literature, and social roles of women from colonial America to the present. (D)

INDEPENDENT STUDY

Subject Area 198 Independent Study **1-6 credit hours**

A course providing an opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and the instructor. An independent study request form, accompanied by a plan of study, is submitted to the department chairperson for approval. If the request is approved, the registrar signs the request form and the student registers for the course. Credit earned generally meets elective requirements of a degree or diploma. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

INDUSTRIAL MAINTENANCE

IMT 101 Basic Materials Handling **2 6 4**

A course providing the student with practical experiences in the handling of materials found in industry with a forklift. The student learns to rig materials, stock materials, and move materials in a safe, efficient manner with a forklift. Use of a forklift to remove and replace large heavy machine parts is practiced. Basic materials handling safety is stressed throughout the course. Forklift repairs and preventative maintenance are part of this course. Prerequisite: ISC 102. (S)

IMT 201 Maintenance Applications I **2 6 4**

A general introductory hands-on course in how to logically troubleshoot, adjust and repair industrial machinery. Various component failures are simulated on industrial machinery by the instructor. The student studies the failure symptoms, finds and corrects the problem using basic skills from math, electricty and blueprint reading. Actual repairs encompass using practical skills learned in welding, machine shop, and hydraulics. Preventative maintenance areas such as electrical/mechanical adjusting, maintenance records keeping, and lubrication are stressed. Prerequisites: ELC 102, MEC 102, and WLD 120. (F)

IMT 202 Maintenance Applications II **2 6 4**

A more advanced hands-on course in how to logically troubleshoot, adjust, and repair general industrial machinery. Emphasis is placed on troubleshooting electrical control circuits, motors, mechanical drives, and fluid power circuits. Electrical test instruments such as the volt ohm meter, oscilloscope, and Ammeter are used to find electrical opens, shorts, and grounds. Micrometers and vernier calipers are used to check close fitting mechanical devises. Actual industrial machinery is used when available for students to troubleshoot, adjust, and repair. However, the instructor may simulate problems in some situations to enable the student to get the desired training experiences. Practice in running conduit, mounting circuit breakers, and pulling wire for new and existing machinery is emphasized. Electrical and fluid power preventative maintenance is stressed. Prerequisites: WLD 121, IMT 201. (W)

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety **3 0 3**

An examination of problems of accidents and fire in industry. Covers management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, OSHA regulations, insurance bureau, and how to promote safety programs. (F/S)

ISC 103 Production Control **1 3 2**

A study of day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, and expediting. Case histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of instructor. (SS)

ISC 201 Industrial Organization and Management **3 0 3**

A study of organizational structure for industrial management. Covers operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, and selection and layout of physical facilities. Also includes selection, training, and supervision of personnel as found in typical industrial organizations. (F)

ISC 202 Quality Control **3 0 3**

An examination of principles and techniques of quality control and cost saving. Includes organization and procedure for efficient quality control functions, responsibilities, structure, costs, reports, records, personnel, vendor-customer relationships, sampling inspections, process control, and tests for significance. (W/S)

ISC 203 Motion Study **2 2 3**

An examination of types of methods studies and their applications. Includes process charts, analysis sheets, time study, work simplification, and skill and effort rating. (W)

ISC 204 Value Analysis **3 0 3**

An introduction to the modern concept in the control of manufacturing production, providing the student an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary costs by the use of sound decisions through a common sense approach. (S)

ISC 205 Maintenance Management **3 0 3**

An examination of administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities are covered. (SS)

ISC 207 Foremanship Supervision **3 0 3**

A study of the foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. Includes basic functions of an organization and supervisory responsibility in carrying out the objectives in accordance with the organization's plan. Includes such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations. Prerequisite: BUS 272 or approval of instructor. (D)

ISC 209 Plant Layout **3 2 4**

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Covers layouts for small and medium-sized plants, layout fundamentals, and selection of production equipment and materials handling equipment. Includes effective management of men, money, and materials in a manufacturing operation. Prerequisite: DFT 102. (D)

ISC 1101 Industrial Safety **3 0 3**

A study of the development of industrial safety. Includes accident occurrence and prevention, analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and protection, safety codes, and accident statistics. (F)

ISC 1103 Production Control **1 3 2**

A study of production planning, dispatching, progress reporting, and adjusting and replanning systems and charts which help effectively to control production. Material waste controls, labor controls, indirect labor controls, and overhead controls as they relate to production control are included. (D)

ISC 1110 Time Study and Time Standards **2 2 3**

A course with the primary emphasis on use of the stop watch. Includes breaking down repetitive operation into elements, timing the elements, Wilk readings, operator performance rating, avoidable delays, allowances for unavoidable delays, setting time standards, timing delays, technique of work sampling, bench marks for "normal work pace," motion study such as is needed to intelligently use predetermined time standards, and practice in building up standard time for specific operations using tables of predetermined times for the elements of the operations. (D)

ISC 1113 Quality Control **3 0 3**

A study in setting quality standards for customer acceptance. Includes final inspection to police these standards; prior inspections and specifications to achieve final quality standard at minumum cost; dimensions, tolerances, gages, and other techniques to control dimensions; and qualities other than dimensions which are more intangible. Covers how to set standards of police performance in such areas and receiving inspection, in-process inspection, and sampling. (D)

ISC 1121 Cost Records and Cost Estimates **3 0 3**

A study of estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: approval of instructor. (D)

ISC 1123 Work Measurement **3 2 4**

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. Includes the use of predetermined time schedules and the use of the stop watch as they apply to task performance of the operator in the work performance. Also covers the study of flow diagrams and methods of evaluation for production purposes. Prerequisite: approval of instructor. (D)

ISC 1125 Supervisory Responsibility **3 0 3**

A course dealing with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communications. (D)

LEGAL TECHNOLOGY

LEG 101 Introduction to Paralegalism **3 0 3**

An outline of the curriculum and objectives of the paralegal program, legal vocabulary, task descriptions of various paralegal jobs, professional ethics, certification and accreditation in the professional organizations. An overview of the court system and case analysis. The course requires court observation time. (F)

LEG 113 Family Law I **3 0 3**

A study of the substantive law relating to marriage, separation, divorce, annulment, adoption, and other matters relating to children. Emphasis will be on child custody, alimony, bastardy, and division of marital property (including an explanation of the North Carolina Equitable Distribution Act). (W)

LEG 114 Family Law II **3 0 3**

A course to train paralegals to assist in the competent handling of separations, divorces, annulments and adoptions from initial interview through data collection and drafting of instruments. Students will draft separation agreements, motions for alimony and alimony pendente lite, divorce complaint, divorce judgment, and notice of hearings. Prerequisite: LEG 113. (S)

LEG 116 Contract Law **4 0 4**

A study of the role of contracts in law, essential elements of contract, interpretation, construction, and legal operation, statute of frauds, third party beneficiaries, enforcement, discharge and breach of contracts, remedies upon breach, forms of contracts, options and purchase agreements. (F)

LEG 117 Torts I **3 0 3**

An introduction of the law of torts including its historical development. A study of the substantive law of intentional torts including interference with the person, such as assault, battery, and false imprisonment; interference with property including trespass to land, trespass to chattels and conversion; and defenses to intentional torts. A study of the law of negligence and the process by which recovery of damages is accomplished; formal defenses; and types of recovery possible. (W)

LEG 118 Torts II **3 0 3**

A study of wrongful death and survival actions; vicarious and imputed liability; strict liability; products liability; fraud and misrepresentation; defamation; invasion or privacy; and interference with economic and personal relationships. Prerequisite:LEG 117. (S)

LEG 132 Legal Research **3 6 6**

A study of the principles of legal research, case law and statutory law; codes and legislative intent; sources of law in research; primary authority and secondary authority; the subject or text approach; dictionaries; textbooks; treatises; law reviews; encyclopedias; indexes; words, phrases, and digests; the West Topic and Key Number System; the statutory approach to law; case approach to law; citations; uniform system; shepardizing; preparation of memoranda and other exercises in legal writing; and the paralegal's role in legal research. (W)

LEG 135 Legal Systems and Litigation Preparation **5 0 5**

A study of jurisdiction of state and federal courts. An introduction to the pre-trial, trial and post-trial steps in both civil and criminal acitons. The course will include introduction to the North Carolina and Federal Rules of Procedure and Rules of Evidence. The course will include preparation of pleadings, answers, cross-actions, counter-claims, trial briefs, and an appellate brief. Students will work through an actual case including mock trial. (S)

LEG 140 Bankruptcy and Collection **3 0 3**

An introduction to the Federal Bankruptcy Act and the procedures and documents required of persons involved in bankruptcy and wage-earner proceedings; the collection of money judgments including procedures and devices for collection and defenses against collection; and relief measures for debtors. (S)

LEG 204 Investigation **4 0 4**

A course in various techniques of interviewing both clients and witnesses. Upon successful completion of this course, the student should be able to obtain medical records, official records and documents for preparation of client matters; research and design interview sheets and checklists for various legal matters and design in-house files for legal proceedings. Prerequisite: LEG 132. (S)

LEG 214 Property I **3 0 3**

Introduction to basic concepts and principles of Anglo-American law as they relate to property; exploration of the sources, nature, and historical development of rights of "owners" and of possessors; historical foundations and modern relevance of the system of estates in land; introduction to future interests, and devices for the control of wealth after death. (W)

LEG 215 Property II **3 0 3**

Study of the development of the rights of landlord and tenant; regulation of land use by private agreement-covenants, easements, contractual agreements and their limitations; introduction to public control of land use, i.e., zoning laws, eminent domain. Prerequisite: LEG 214. (S)

LEG 216 Property III **3 0 3**

Study of the modes of acquisition and transfer of title or interest in real property including the preparation of contracts of sale, leases, general warranty deed, deed of trust, title insurance, settlement sheets. Study of the examination of titles to real property in North Carolina, title examinations generally, priorities involved in recordation, forms of abstracting title from public record, and various problems which render a title unmarketable. Prerequisite: LEG 215. (F)

LEG 217 Criminal Law **3 0 3**

A study of the general principles of criminal law and the elements of crimes in North Carolina, punishment, parties to a crime and defenses. (F)

LEG 218 Civil Procedures and Discovery **4 0 4**

An in-depth study of jurisdiction of the courts, acquisition over parties and subject matter, venue, and pleadings (forms of action) under North Carolina and Federal Rules of Civil Procedure; including joinder of claims and parties; class actions; interpleader and third party practice; discovery and pre-trial procedures, trial, judgments, appelate review, res judicata, collateral estoppel, and the law of the case. Prerequisities: LEG 135. (W)

LEG 219 Criminal Procedures **3 0 3**

A study of state and federal criminal procedures from investigation by law enforcement officers through trial to appeal and post-trial remedies, including constitutional rights of those accused of crime, suppression of evidence, and discovery. (W)

LEG 220 Uniform Commercial Code **3 0 3**

A course focusing on the general law of commercial transactions with particular emphasis on the Uniform Commercial Code as the underlying statutory framework. The course will provide intensive study on the sales, commercial paper, and secured transaction sections of the Code. Students will be analyzing various types of day-to-day commercial transactions in light of the Code provisions. Prerequisite: LEG 116. (W)

LEG 221 Business Organizations **3 0 3**

An introduction to the law of corporations (closely held and public), partnerships, and limited partnerships. Students will become familiar with the Model Business Corporation Act, Uniform Partnership Act, and Uniform Limited Partnership Act, along with the North Carolina law in these areas. Students will prepare incorporation papers, bylaws, and annual meeting minutes for a model corporation. They will also prepare certificates of doing business under an assumed name. (W)

LEG 225 Law Office Management **3 0 3**

The study of types of law practices; setting up and maintaining systems within the office, including tickler, timekeeping, client file, and bookkeeping systems; maintaining ethical standards and professional responsibility; selecting and supervising secretarial personnel; and billing and upgrading practices. Lab experiences include setting up a tickler reminder system; surveying the distribution of types of law practice in this area and equipment in typical law offices; drafting a resume; and preparing a major project on time-flow, case progress, and statutes of limitations. (S)

LEG 227 Estate Management I **3 0 3**

A course in interview techniques and gathering data for preparation of wills and estate plans. Basic estate and trust principles will be included. Preparation of inventories, accounts, and other documents for administration of estates and trusts, and procedures for administration of estates for deceased persons, minors, and incompetents will be included. (F)

LEG 228 Estate Management II **3 0 3**

Continuation of Estate Management I with emphasis on the execution and operation of wills; probate and contest of wills; preparation of federal and state inheritance, estate and gift tax forms. Prerequisite: LEG 227. (W)

LEG 250 Clinical Practice **1 12 5**

A course providing students with an opportunity to gain, under staff supervision, practical on-the-job experience in the paralegal field as an integral part of their formal education. Periodic conferences between the student, instructor, and employer and periodic seminars with others enrolled in clinical practice provide opportunities to assess the learning achieved by the student in the work experience. Prerequisite: at least four quarters in the paralegal curriculum. (S)

MACHINE SHOP

MEC 101 Machine Processes **2 4 4**

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting to become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. (F)

MEC 102 Machine Processes **2 4 4**

A study of advanced operations on lathe, drilling, boring, and reaming machines. Includes milling machine theory and practice. Provides a thorough study of the types of milling machines, cutters, jig, and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: MEC 101. (W)

MEC 114 Shop Practice **1 6 3**

A shop practice course designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy are emphasized. Slip and press fits are produced to include bearing assembly. Prerequisites: MEC 101, MEC 102. (W)

MEC 122 Production Procedures **4 3 5**

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost savings, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control is reviewed as well as the different processes in producing an item. Prerequisite: MEC 102.

MEC 205 Strength of Materials **3 2 4**

A study of principles and analyses of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welding joints, beams, columns, and machine components. Prerequisites: PHY 106, MAT-T 103. (F)

MEC 207 Tool Making **3 3 4**

A course surveying the actual construction of molds with topics of tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold cooling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: PLA 107. (W/S)

MEC 210 Physical Metallugy **3 3 4**

An introductory course in metallurgy covering a basic study of the properties of metals and alloys. Includes analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also covers solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisite: PHY 101. (F)

MEC 211 Physical Metallurgy **3 3 4**

A study of the properties of metals and alloys, the reaction of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, and heat treatment of steel. Includes laboratory experiments and demonstrations. Prerequisite: MEC 210. (W)

MEC 235 Hydraulics and Pneumatics 3 3 4

An examination of the basic theories of hydraulic and pneumatic systems with a look at combinations of systems in various circuits. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. (S)

MEC 236 Intermediate Hydraulics and Pneumatics 2 6 4

A continuation of procedures covered in MEC 235 with emphasis being given to trouble-shooting procedures and building hydraulic circuits using actuators, motors, servos, pumps, etc. Pneumatic circuits will also be designed, constructed and operated. Prerequisite: MEC 235. (SS)

MEC 265 Bearings and Fasteners 2 6 4

A course designed to acquaint the student with various bearings and fasteners found on industrial machinery. Bearing materials, bearing types, bearing selection, and lubrication are studied. Proper removal and replacement of bearings are practiced. Preventative maintenance records showing bearing failures, replacements, and lubrication are emphasized during the course. Identification, selection, and replacements of various fasteners such as nuts, bolts, machine screws, taper pins, pipe threads, rivets, keyways, and lag screws are studied. Prerequisite: MEC 102. (S)

MEC 1101 Machine Shop Theory and Practice 4 12 8

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments; elementary layout procedures; and processes of lathe, drill press, and grinding (off-hand) and milling machines. Includes both theory and practice. (F)

MEC 1101A (Part-time) 2 6 4

MEC 1101B (Part-time) 2 6 4

MEC 1102 Machine Shop Theory and Practice 4 12 8

A course in advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student is introduced to the basic operations on the cylindrical grinder and selects projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101. (W)

MEC 1102A (Part-time) 2 6 4

MEC 1102B (Part-time) 2 6 4

MEC 1103 Machine Shop Theory and Practice 4 12 8

A course providing advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. Includes an introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worn gears and wheels. The trainee uses precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises are given on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102. (S)

MEC 1103A (Part-time) 2 6 4

MEC 1103B (Part-time) 2 6 4

MEC 1104 Machine Shop Theory and Practice 3 12 7

A course providing for the development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection. Includes additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Covers special procedures and operations, processes and equipment, observing safety procedures, and establishing good work habits and attitudes acceptable in the industry. Prerequisite: MEC 1103. (S)

MEC 1104A (Part-time) 2 6 4

MEC 1104B (Part-time) 1 6 3

MEC 1108 Introduction to Computer Numerical Control 2 3 3

An introduction to computer numerical control theory and the applications of this theory in industry. Different control systems and the advantages or disadvantages of each will be discussed. Basic machine setup, operation, and programming will be undertaken. Special emphasis will be placed on the Cartesian Coordinate System. Prerequisites: MEC 1102 or equivalent experience. (S)

MEC 1108A (Part-time) 1 0 1

MEC 1108B (Part-time) 2 3 2

MEC 1109 Intermediate Computer Numerical Control 2 3 3

A continuation of MEC 1108. Course will build on N.C. theory developed in MEC 1108 in order to promote confidence and competence in advanced operation of computer numerical control machine tools. Emphasis will be placed on setups, program loading, establishing offsets, running programs to produce parts and trouble-shooting. Prerequisites: MEC 1108. (S)

MEC 1109A (Part-time) 1 0 1

MEC 1109B (Part-time) 2 3 2

MEC 1115 Treatment of Ferrous Metals 2 3 3

An investigation of the properties of ferrous metals and tests to determine their uses. Includes some chemical metallurgy to provide a background for the understanding of the physical changes and their causes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron are topics for study. (S)

MEC 1116 Treatment of Non-ferrous Metals 2 3 3

An investigation of the properties of non-ferrous metals and tests to determine their uses. Primary interest is in aluminum, magnesium, zinc, lead, and chromium. Non-ferrous alloys such as brass, bronze, bobbit, and cemented carbides are studied. A discussion of stainless steel is included. Prerequisite: MEC 1115. (SS)

MEC 1117 Basic Metals Identification 1 2 2

An elementary and practical approach to metals and their identification, classification, and basic structure with major emphasis on ferrous metals. Testing and identification tests utilize several methods including hardness, impact, tensile, color, spark, machining, and magnetic. (F)

MEC 1122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes to produce an item. Prerequisite: MEC 1104. (SS)

MEC 1201 Machine Processes 3 12 7

An introduction to the tools, instruments, machines, and methods used in the tool and die shop. Basic tool and die making procedures are stressed, especially as they pertain to simple blanking or bending dies and to tooling used to locate and hold parts in production. Students work on selected projects to develop a proficiency level. Prerequisite: machine shop graduate or approval of instructor. (D)

MEC 1201A (Part-time) 2 6 4

MEC 1201B (Part-time) 1 6 3

MEC 1202 Machine Processes 3 12 7

An advanced study of the operation of individual parts as they pertain to tools, dies, or fixtures. Includes special training instructions on gauging practices, assembly, and its application of the finished product. Students are assigned individual projects to help develop their proficiency in the use of various types of machine tools. Prerequisite: MEC 1201. (D)

MEC 1202A (Part-time) 2 6 4

MEC 1202B (Part-time) 1 6 3

MEC 1203 Machine Processes 3 12 7

A continuation of MEC 1202 providing a detailed study of die sets for the punch press and molding machinery. Emphasis is given to use of strippers, knockouts, material guides, and other supportive parts. Project work includes finish grinding, honing, and lapping as necessary to the assembly of the finished tool. Students are allowed to use their own reasoning as it pertains to the finished product. Prerequisite: MEC 1202 or approval of instructor. (D)

MEC 1203A (Part-time) 2 6 4

MEC 1203B (Part-time) 1 6 3

MEC 1204 Machine Processes 3 12 7

A course including the use of die stops, ejector pins, and production feeding processes. Covers stock strip layout, selection of purchased parts for dies and molds, and survey of setup and start-up procedures for tools, dies, and molds. Also includes a review of the final assembly of subparts. Prerequisite: MEC 1203 or approval of instructor. (D)

MEC 1204A (Part-time) 2 6 4

MEC 1204B (Part-time) 1 6 3

MEC 1205 Strength of Material 2 3 3

A study of the principles and analysis of stresses which occur within machine and structure elements. Includes an analysis of stresses as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. (D)

MEC 1207 Tool-making 3 3 4

A course surveying the actual construction of molds and covering tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold coiling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: MEC 1201 or approval of instructor. (D)

MEC 1210 Metallurgy 2 3 3

A course surveying the actual construction of multi-station progressive dies covering tolerances, shrinkage, growth, deformation and tool steel selection. Includes blank development, form timing and allowances. Also includes stock material width and thickness selection. Prerequisite: MEC 1201. (D)

MEC 1214 Tool Design and Planning 2 3 3

A course in planning a production area and isolating the areas needing tools and fixtures for production and estimating the cost for tooling the assignment. Typical tool design is employed with blueprints reflecting standard procedures. Design from the drawing board is stressed. Prerequisite: machine drawing or approval of instructor. (D)

MEC 1235 Hydraulic and Pneumatics 2 3 3

A study of the basic theories of hydraulic and pneumatic systems. Covers combinations of systems in various circuits. Also includes basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanism, plumbing, filtration, accumulators, and reservoirs. (D)

MATHEMATICS

MAT 090 Arithmetic 3 2 4

A course covering the basic operations of addition, subtraction, multiplication, and division as performed on whole numbers. Includes greatest common factor, least common multiple, common fractions, and decimal fractions. Also included are ratio and proportions, percentages, and formula evaluation. Completion of this course does not earn credit toward the completion of a diploma or a degree. (F/D)

MAT 091 Algebra 3 2 4

An elementary course in algebra including topics such as operations on signed numbers, exponents, operations on polynomials, special products and factoring, algebraic fractions, solving and graphing linear equations, radicals, quadratic equations, and properties of the imaginary unit. Completion of this course does not earn credit toward the completion of a diploma or a degree. Prerequisite: MAT 090 or satisfactory score on the placement test. (F/D)

MAT-T 100 Mathematics **3 0 3**

A study in practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 101 College Math **3 0 3**

A study of college mathematics including the study of polynomials, algebraic fractions, exponents, radicals, and an introduction to the metric system. Prerequisite: MAT 091 or a satisfactory score on the placement test. (F/W/S)

MAT-T 101 Technical Math **5 0 5**

The first course in a three-course technical math sequence. Topics of study include the arithmetic of whole numbers, decimals, common fractions, percents, signed numbers, and algebraic expressions. (F)

MAT 102 College Math **3 0 3**

A further study in college mathematics, this course includes algebraic equations, mathematical method, mathematical logic, properties of number systems, and an introduction to computers. Prerequisite: MAT 101. (W)

MAT-T 102 Technical Math **5 0 5**

The second course in a three-course technical math sequence. Topics of study include linear equations, special products, factoring, algebraic fractions, and elementary plane geometry. Prerequisite: MAT-T 101 or equivalent. (W)

MAT 103 College Math **3 0 3**

The third and final course of a sequence in college mathematics. Topics include vectors and matrices, inequalities, functions and relations, algebraic functions, and exponential and logarithmic functions. Prerequisite: MAT 102. (S)

MAT-T 103 Technical Math **5 0 5**

The third course in a three-course technical math sequence. Topics include exponents, radicals, quadratic equations, and trigonometry. Prerequisite: MAT-T 102 or equivalent. (S)

MAT 110 Business Math **5 0 5**

A course stressing the fundamental operations and their applications to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: MAT 090 or satisfactory score on placement test. (F/W/S)

MAT 111 Algebra **5 0 5**

An axiomatic presentation of the real number system as an ordered field in which definitions, axioms, and theorems are used to justify the traditional algebraic processes involving such topics as algebraic fractions, factoring, absolute value, equations, inequalities, radicals, and exponents. Additional topics are various types of functions, including the exponential functions, logarithmic functions, and the circular functions. Prerequisite: MAT 101 or satisfactory score on the placement test. (F)

MAT 112 Trigonometry 5 0 5

A continuation of MAT 111 and including the study of the trigonometric functions, identities, radian measurements, trigonometric equations, complex number, theory of equations, systems of equations, binomial theorem, probability, and sequence. Prerequisite: MAT 111. (W)

MAT 113 Analytical Geometry and Calculus I 5 0 5

A course including the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity, and an introduction to differentiation. Prerequisite: MAT 112 or equivalent. (S)

MAT 201 Analytical Geometry and Calculus II 5 0 5

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem, and inflection. The indefinite integral and its properties are also introduced. Prerequisite: MAT 113 or equivalent. (F)

MAT 202 Analytical Geometry and Calculus III 5 0 5

A continuation of the study of the indefinite and integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendental functions, integration by parts, integration by substitutions, and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV 5 0 5

A study including multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series, and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent. (W)

MAT 214 Statistics 5 0 5

A study of the theory of statistics and its application in modern business. Includes kinds of regularity that exist among random fluctuations and experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 101 or MAT 110, MAT-T 101. (F)

MAT 220 Differential Equations 5 0 5

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203. (D)

MAT 225 Linear Algebra 5 0 5

This course begins with a thorough study of systems of equations in several unknowns with Gaussian elimination being employed as a method of solution. Next, computations with vectors, matrices, and determinants are discussed.

The last half of the course includes a study of general vector spaces, linear transformations, and Eigenvectors and Eigenvalues. Consideration is given at all times to both the theoretical develoment of concepts and the applications of these concepts in order to provide a broader view of the subject. (SS)

MAT 1101 Fundamentals of Math **3 0 3**

A study of practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 1102 Algebra **5 0 5**

A study of basic concepts and operations of algebra. Includes historical background of base-10 number system; algebraic operations, subtraction, multiplication, and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation, graphical and algebraic solution of first degree equations; and solution of simultaneous equations by addition, subtraction, graphing, exponents, logarithms, tables, and interpolation. (W)

MAT 1104 Trigonometry **3 0 3**

A study of trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions and trigonometric equations. All topics are applied to practical problems. (S)

MAT 1110 Fundamentals of Math for Plumbers and Welders **5 0 5**

An in-depth review of the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The study of metric units as well as linear, angular, and surface measurements are included. Emphasis is placed on measuring and using measurements to solve plumbing and welding problems. (W)

MAT 1115 Electrical Math **5 0 5**

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, and ratios and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables and introduction to trigonometric functions and their applications to right angles; and a study of vectors for use in alternating current. (F)

MAT 1123 Math: Machinist **3 0 3**

An introduction to gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems. Prerequisite: MAT 1104. (SS)

MAT 1201 Trigonometry **5 0 5**

A course stressing trigonometric ratios, solving problems with right angles using tables or calculators, and interpretation of tables. Covers solving for sides or angles using the laws of sine and cosine. Includes a survey of the use of inverse functions of trigonometric equations. All topics are applied to practical problems found within a machine shop. Prerequisite: MAT 1123 or approval of instructor. (D)

MAT 1202 Uses of the Handbook **3 0 3**

A course featuring practical problems especially selected as they pertain to the manufacture of tool parts. Stresses how to read and interpret the machinery handbook to insure mastery of mathematical principles as they apply to the tool and die trade. Prerequisite: MAT 1101 or approval of instructor. (D)

MEDICAL SONOGRAPHY

SON 101 Introduction to Medical Sonography **1 2 2**

This course is an introduction to the field of ultrasound. Brief discussions involving basic unltrasound physics, ultrasound used in abdominal work, and ultrasound used with the OB-GYN patient. The students are also introduced to the affiliated institutions and their clinical instructors. Basic ultrasound terminology is introduced. Recording of permanent ultrasound images is discussed, along with basic processing techniques. (EF)

SON 102 Ultrasound Physics I **3 2 4**

A study of the basic physical properties of ultrasound. Fundamental mathematics, definitions, attenuation of ultrasound, and transducers are discussed in detail. In addition, sound beams, focusing, diffraction, and resolution are emphasized. Laboratory time is used to demonstrate theory discussed in class. Prerequisite: SON 101. (F)

SON 103 Ultrasound Clinical Lab I **0 18 6**

A course providing practical experience in the hospital setting. Patient contact is begun. Abdominal ultrasound is emphasized. Prerequisite: SON 101. (F)

SON 104 Ultrasound Principles I **2 2 3**

A study in diagnostic ultrasound with emphasis on abdominal ultrasound. Included in the course is a detailed study of abdominal cross-sectional and sagittal anatomy, pathology and physiology. (F)

SON 105 Ultrasound Principles II **2 2 3**

A study in gynecological ultrasound including cross-sectional anatomy, physiology, and pathology. Lab hours are used for analyzing gynecological scans. Scanning techniques for the female pelvis are discussed in detail. (W)

SON 106 Ultrasound Clinical Lab II **0 24 0**

The clinical work would consist mainly of recognizing anatomy in the female pelvis. Pathology of female pelvis will be studied and student will be able to recognize abnormalitites. Prerequisite: SON 103. (W)

SON 107 Ultrasound Physics II **3 2 4**

This course is a continuation of SON 102 in which emphasis is placed on ultrasound equipment and imaging. Different modes of display including realtime imaging are discussed. In addition, display systems, video scan converters, analog, digital, and television are included in discussions. Some attention is given to biological effects, instrument calibration, and doppler. Labs are used to demonstrate equipment discussed in class. Prerequisite: SON 102. (W)

SON 108 Ultrasound Principles III 2 2 3

This course is a continuation of SON 105 with emphasis on obstetrics. Fetal development, anatomy, physiology, and pathology are discussed in detail. Labs involve critiquing of obstetrical scans. Attention is also given to complications of pregnancy. Prerequisite: SON 105. (S)

SON 109 Ultrasound Clinical Lab III 0 24 8

A course providing practical experience in the hospital. A continuation of clinical knowledge in all areas of ultrasound is provided with emphasis on obstetrical ultrasound. (S)

SON 110 Ultrasound Principles IV 2 2 3

An introductory course in breast, doppler, and thyroid ultrasound. Anatomy, physiology, and pathology of the breast and thyroid gland are discussed. Anatomy and pathology of major vascular system are included. (SS)

SON 111 Ultrasound Clinical Lab IV 0 24 8

A continuation of practical hospital experience in the ultrasound lab. All types of ultrasound scans are observed and performed. Emphasis is placed on quality patient care, thyroid scans, breast scans, and doppler. (SS)

SON 112 Ultrasound Clinical Lab V 0 27 9

A course providing practical experience in medical sonography in the hospital setting. Abdominal sonography is emphasized. Prerequisites: SON 103, 104, 106, 109, 111. (F)

SON 113 Ultrasound Clinical Lab VI 0 27 9

A course providing further practical experience in medical sonography in the clinical setting. Emphasis is placed on gynecological sonography. Prerequisites: SON 103, 105, 106, 109, 111, 112. (W)

SON 114 Ultrasound Clinical Lab VII 0 36 12

This course provides clinical experience in the hospital setting. Obstetrical sonography is emphasized. Prerequisites: SON 103, 108, 106, 109, 111, 112. (S)

SON 115 Ultrasound Clinical Lab VIII 0 36 12

A total review of abdominal, OB-GYN and thyroid sonography in the clinical setting. Prerequisites: SON 103, 106, 109, 111, 112, 113, 114. (SS)

MUSIC

MUS 101 Music Appreciation 3 0 3

An historical study of music, with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces and other significant works. (F/W/S)

MUS 102 Elementary Theory of Music I 3 0 3

A study of the fundamentals of music including note reading and dictation, major scales with related and parallel minors, key signatures, basic intervals, enharmonics and rhythms. Prerequisite: None.

MUS 103 Elementary Theory of Music II **3 0 3**

A continuation of fundamentals of music, with emphasis on figured bass diminshed and augmented chords, chord inversions, fourpart harmonic progressions, cadences, phrase structure and nonharmonic tones. Prerequisite: MUS 102.

MUS 104 Elementary Theory of Music III **3 0 3**

A continuation of basic fundamentals of music, with emphasis on beginning sight-singing, rhymic, melodic and harmonic dictation, secondary dominants, transposition and modulation. Prerequisites: MUS 103.

MUS 105 Chorus **0 2 1**

A group singing class with emphasis on classical, semi-classical, and popular contemporary songs. (F/W/S)

MUS 107 Piano **0 2 1**

A course for students entering at any level of proficiency with emphasis on improving playing technique. No previous experience necessary. May be used as a refresher course for those out of touch with the keyboard or as a course for those who wish to develop new skills at any level. Evaluations based on progress from one level of proficiency to another, depending on the level at which the student begins. Up to 6 credit hours may be accumulated. (F/W/S/SS)

MUS 111 Guitar **0 2 1**

Emphasizes developing finger dexterity, forming chords, strumming, rhythmic patterns, and tuning the guitar. Lessons are presented in logical sequential steps. The course stresses good musicianship and teaches proper playing techniques. The overall course content is concerned with theory, harmony, reading from musical notation and rhythm.

MUS 112 Intermediate Band **0 2 1**

A small ensemble for students who have ability playing any band instrument with emphasis on instrument mastery and performance. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play a band instrument at the intermediate level. (W)

MUS 113 Advanced Band **0 2 1**

A large ensemble for students who have an advanced ability and experience playing any band instrument with emphasis on extending instrument mastery, playing a variety of musical styles, and learning a variety of musical interpretations. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play any band instrument at the high school level. (F/W/S/SS)

MUS 114 Applied Music Education **1 2 2**

An intensive study in applied music performance and practice on individual instruments. Private practice outside of class is required. Up to 12 hours may be accumulated. Prerequisite: faculty approval.

MUS 115 Voice 0 2 1

A study of the principles of voice production and extensive singing with emphasis on both group singing and solo song literature. For the beginning voice student. No knowledge of music required. (F)

MUS 116 Voice 0 2 1

A study of the principles of voice production and extensive singing with emphasis on both group singing and solo song literature. For the beginning voice student. No knowledge of music required. Prerequisite: MUS 115. (W)

MUS 117 Voice 0 2 1

A study of the principles of voice production and extensive singing with emphasis on both group singing and solo song literature. For the beginning voice student. Prerequisite: MUS 115, 116. (W)

MUS 120 Orchestra 0 2 1

A large ensemble for student practice and performance for music majors and musicians of advanced ability who play an orchestral instrument. Prerequisite: faculty approval.

MUS 121 Small Ensemble 0 2 1

A small musical group for student practice and performance. Instrumentation depends upon availability and needs. Coaching by faculty members. Up to six hours may be accumulated. Prerequisite: faculty approval.

MUS 124 Fundamentals of Music I 2 3 3

A study of scales, modes, intervals, triads and their inversions, and cadences. Ear training studies in intervals, beginning sightsinging, and rhythm reading emphasized. Prerequisites: Music Placement or MUS 104.

MUS 125 Fundamentals of Music II 2 3 3

A study of seventh, ninth, eleventh and thirteenth chords, modulations, secondary dominants and beginning harmonic analysis. Ear training studies in interval indentification, intermediate sightsinging skills, clef reading and rhythmic studies emphasized. Prerequisites: MUS 124.

MUS 126 Fundamentals of Music III 2 3 3

A study of chromatically altered chords, harmonic analysis and an introduction to counterpoint. Ear training studies in chord quality identification, chord inversion vocalization, dictation exercises, sightsinging and rhythm emphasized. Prerequisite: MUS 125.

MUS 201 American Music 3 0 3

A study of Western music as it existed and exists on the American continent from 1640 to the present including music from all genres, Afro-American, and Indian music. (D)

MUS 202 Romantic Period 3 0 3

A study of the music of the Romantic period, the development of program music, German and Italian opera, late Romantic music, Nationalism, Impressionism, and post-Romantic music. The course will begin with a study of the works of Beethoven and will cover the major composers such as Schubert, Chopin, Liszt, Berlioz, Strauss, Wagner, Verdi, Tchaikovsky, Brahms, Debussy, and Ravel. (D)

MUS 204 Music History I **3 0 3**
A study of the history of music from the end of the ancient world until the sixteenth century. Music listening is an integral part of this course.

MUS 205 Music History II **3 0 3**
A study of the history of music from the late Renaissance through the classical period. Music listening is an integral part of this course.

MUS 206 Music History III **3 0 3**
A study of the history of music from the beginning of the romantic period until the present. Music listening is an integral part of this course.

MUS 217 Applied Music Performance **3 3 4**
An intensive study in applied music performance and practice on individual instruments. Private practice outside of class is required. Up to 24 hours may be accumulated. Prerequisite: faculty approval.

MUS 224 Advanced Fundamentals of Music I **2 3 3**
An introduction to 20th century harmony, including scale materials, chords by seconds, thirds, fourths and added note chords. Ear training studies in dictation, sight singing and rhythm reading emphasized. Prerequisite: MUS 126.

MUS 225 Advanced Fundamentals of Music II **2 3 3**
A continuation of 20th century studies, polychords, compound and mirror harmony, harmonic direction and dynamics. Introduction to instrumentation and advanced ear training covered. Prerequisite: MUS 224.

MUS 226 Advanced Fundamentals of Music III **2 3 3**
A study of 20th century embellishment, key centers and harmonic synthesis. Introduction to orchestration and advanced ear training studies are covered. Prerequisite: MUS 225.

NUCLEAR MEDICINE TECHNOLOGY

NMT 101 Nuclear Medicine Technology I **2 0 2**
An orientation to the field of nuclear medicine technology. Basic patient care procedures and professional ethics are emphasized. An introduction to the positions of imaging with emphasis on certain radio pharmaceuticals are included. (F)

NMT 102 Nuclear Medicine Technology II **2 0 2**
An introduction to instrumentation used in nuclear medicine with emphasis on radiation safety. Part of this course will include "hands on" at one of the affiliate institutions. Prerequisite: NMT 101. (W)

NMT 103 Nuclear Medicine Technology III **2 0 2**
A study of the *in-vivo* nuclear medicine procedures. Patient prepatation and dosages for these procedures are emphasized. Prerequisite: NMT 102. (S)

NMT 104 Nuclear Medicine Technology IV **2 0 2**

A study of *in-vitro* procedures. The importance of these studies and an update of the recent and most frequently performed *in-vitro* studies are included. Prerequisite: NMT 103. (SS)

NMT 126 Clinical Practicum I **0 4 2**

During this first clinical practicum, the student will rotate to clinical sites to observe the routine activities in the nuclear medicine department and become familiar with medical terminology and professional ethics. (F)

NMT 127 Clinical Practicum II **0 12 4**

Practicum that enables the student to learn under close supervision the various tests employed in the practice of laboratory and clinical nuclear medicine. The student is rotated through all the tasks commonly performed by the nuclear medicine technologists. Prerequisite: NMT 126 (W)

NMT 128 Clinical Practicum III **0 12 4**

The student will perform simple tasks under close supervision of a nuclear medicine technologist. These may include changing of collimators, assisting with patient movement and positioning and explaining to patient the procedure. Prerequisite: NMT 127. (S)

NMT 129 Clinical Practicum IV **0 12 4**

A combination of lectures and demonstrations. Some of the topics include radionuclede generators, radiation safety, quality control and manipulation of the imaging instrument to perform the different examinations. Prerequisite: NMT 128. (SS)

NMT 211 Principles of Nuclear Medicine I **2 0 2**

A detailed study of the cardiac anatomy, physiology and pathology will be undertaken. This will be followed by nuclear cardiology application including recent developments in radiopharmaceuticals, instrumentations, data acquisition, processing and the final product-display. Other systems covered in this course will be the genitourinary and musculoskeletal under the following headings:anatomy, physiology and pathology, radiopharmaceuticals, techniques and interpretation. For additional details refer to Unit 14 and 15 of the Nuclear Medicine Curriculum Guide. Prerequisite: NMT 104. (F)

NMT 216 Nuclear Physics **2 0 2**

An introduction to atomic structure, nuclear decay schemes, concepts of radioactive decay followed by a discussion on the interaction of radiation with matter. Emphasis will be placed on systems and units of measurements, atomic components, methods and modes of decay and the origin and nature of nuclear radiations. Refer to Unit 3 in the Nuclear Medicine Guide for additional details. Prerequisite: NMT 104. (F)

NMT 217 Health, Physics and Radiobiology **3 0 3**

A study in ionization processes with particular emphasis on terms such as Roentgen, dose equivalent, relative biologic effectiveness, quality factor, and maximum permissible dose. Licensing requirements, general principles of licensing and application procedures and quidelines for radiation protection are thoroughly discussed. Radiation areas are defined by levels of exposure. Requirements, recommendations and procedures for record keeping and personnel monitoring are included, as well as emergency management and decontamination techniques and the proper storage and disposal of radioactive material. The effects of radiation on the human body along with the benefits of medical uses of radiation are also presented. Prerequisite: NMT 279. (SS)

NMT 221 Principles of Nuclear Medicine II **2 0 2**

A study of the principles and applications of radio nuclide examinations of the endocrine and central nervous systems is undertaken. Review of previously learned anatomy, physiology and pathology of these systems will be integrated into the clinical imaging aspects of nuclear medicine technology. For a detailed outling of these organs, refer to Unit 14 of the Nuclear Medicine Curriculum Guide. Prerequisite: NMT 111. (W)

NMT 223 Radiopharmacy I **2 0 2**

An introduction to radiopharmeceutical methodologies and mathematical calculations. Derivation and applicability of the decay equation, calculation of doses, concentration, volume and shielding are emphasized. Also included are descriptive, inductive and counting statistics and graphing as applied to nuclear medicine. For additional detailed description refer to Unit 4 in the Nuclear Medicine Curriculum Guide. Prerequisite: MAT 101. (W)

NMT 230 Nuclear Medicine Instrumentation I **3 2 4**

Basic radiation detectors, their application, functions and limitations are discussed in detail. Included is an overview of electronics, gas-filled detectors, statistics and counting, scintillation detection systems (solid and liquid), semiconductors and instrument stability and quality control. Laboratory experiments of learned material are also performed. Prerequisite: NMT 111. (W)

NMT 233 Radiopharmacy II **2 0 2**

A study of radiopharmaceuticals used in nuclear medicine to include their production, general systems, rediopharmaceutical preparations, labeling information, methods of localization, quality control, record keeping, storage and state and federal drug regulations. For detailed course description, refer to Nuclear Medicine Curriculum Guide Unit 10. Prerequisite: NMT 223. (S)

NMT 240 Nuclear Medicine Instrumentation II **3 2 4**

A study in instruments commonly used in nuclear medicine imaging. A detailed description of the components of rectilinear scanners and anger scintillaion cameras is provided. Multiple crystal camera, tomographic systems and computers are discussed. Laboratory experiments involving learned material are performed. Prerequisite: NMT 230. (S)

NMT 241 Principles of Nuclear Medicine III **2 0 2**

A study of the principles and application of radionuclide studies of the respiratory, digestive, hepatic and hepatobiliary systems. Review of previously learned anatomy, physiology and pathology of the systems will be incorporated into the clinical imaging with laboratory procedures as pertinent in nuclear medicine. For additional information, refer to Nuclear Medicine Curriculum Guide, Unit 14. Prerequisite: NMT 221. (S)

NMT 251 Principles of Nuclear Medicine IV **2 0 2**

A study of the hematopoietic system, testicular studies, breast, dacroscintigraphy, venography and the Veen shunt as pertains to nuclear medicine. This course will include gastrointestinal absorption measurements to include studies such as fat absorption, GI protein loss, GI blood loss, and Schilling's test. Focus will be directed to rationale, patient history, radiopharmaceuticals and procedure methodologies. Also included in this course is hemotologic and radioisotope dilution procedures such as blood volumes, red blood cells, ferrokinetics, red cell mass, red cell survival and red cell sequistration. For additional information, refer to Nuclear Medicine Curriculum Unit 17 and Unit 18. Prerequisite: NMT 241. (SS)

NMT 255 Introduction to Radio-Immuno Assay **1 2 2**

An introduction to the theory and principles of radioassay procedures. This course includes basic immunology, competitive radioassay, sequential saturation analysis, and sandwich assays. Class discussions include antibody production, radio labeling, separation techniques, quality control, and instrumentation used in radioassy procedures. Experiments in pipetting, instrumentation, equipment use and radioassay performance are included. Prerequisite: NMT 104. (F)

NMT 269 Clinical Practicum V **0 24 8**

This practicum extends from each Monday through Wednesday, eight hours per day. It enables the student to participate in the routine activities of the nuclear medicine department which will include quality control of radiopharmeceuticals and instrumentation, imaging or organs and to observe venous puncture techniques. Prerequisite: NMT 129. (F)

NMT 274 Clinical Practicum VI **0 24 8**

A practical experience in a clinical setting with emphasis on the more advanced applications of nuclear medicine procedures, preparation and use of radiopharmaceuticals and technical manipulation of instrumentation is stressed. The practicum will be scheduled Monday through Wednesday at eight hours per session. Prerequisite: NMT 269. (W)

NMT 278 Seminar in Nuclear Medicine **0 6 2**

A review of all topics covered in nuclear medicine. Audio-visual material and assigned text will be utilized throughout this course. (SS)

NMT 279 Clinical Practicum VII **0 24 8**

A practical experience in a clinical setting with emphasis on *in-vitro* procedures and therapeutic use of radionuclides. The course will incorporate all previous clinical practicum knowledges gained thus far. Prerequisite: NMT 274. (S)

NMT 284 Clinical Practicum VIII **0 24 8**

Emphasis is placed in the more advanced *in-vivo* and *in-vitro* nuclear medicine performed. Studies will focus on abnormal studies of the various deagnostic tests with emphasis on speed, accuracy, precision and overall technological knowledge. An extension of NMT 274 and NMT 279. Prerequisite: NMT 279. (SS)

NMT 290 Nuclear Medicine Technology Review **2 0 2**

A combination of all lectures and clinical practicum will be reviewed. The material will be presented in the format of the national and state board examinations. These tests will cover the entire nuclear medicine curriculum. Prerequisites: NMT 233, NMT 240, NMT 241 and NMT 279. (SS)

NURSING

NUR 101 Fundamentals of Nursing **6 6 8**

A course designed to provide a foundation for all subsequent courses in nursing. Students are provided with opportunities to learn the principles and techniques which are basic to the effective and safe nursing care in meeting the needs common to all patients. Emphasis is placed on the patient's environment, hygienic needs, communications skills, observational skills, planning nursing care, recording, medical and surgical asepsis, and supplementary nursing functions. (F)

NUR 102 Nutrition **3 0 3**

A practical study of nutrients, how they are used by the body, and sources and types of food necessary for the balanced diet in development, with ethnic variations. Physiological processes of digestion, absorption, and metabolism are discussed. An introduction to the most commonly used hospital diets is included. (F)

NUR 103 Pharmacology **3 0 3**

A presentation of facts concerning sources, effects, legalities, and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Emphasis is placed on the nurse's responsibility in relation to drug administration. Prepares the student for the process of administering and computing dosages of therapeutic agents. Practice opportunities are available in both classroom and clinical sessions. Prerequisite: BIO 105. (W)

NUR 104 Medical-Surgical I **6 0 6**

A course providing beginning knowledge of the nursing care of patients with common problems caused by illness. Symptoms of illness, classification of diseases, preoperative and post operative care, longterm illness, and rehabilitation are included. Nursing needs of the patient with disorders and/or diseases of the cardiovascular, urinary tract, and endocrine systems are stressed. Principles related to the care of patients with communicable diseases, skin disorders, as well as emergency and disaster nursing are introduced. Prerequisite: NUR 101 through NUR 102, BIO 105. Corequisites: NUR 103, NUR 105. (W)

NUR 105 Medical-Surgical I Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units in area hospitals to develop the skills needed to demonstrate the knowledge learned in NUR 104. Prerequisites: NUR 101 through 102. Corequisites: NUR 103, NUR 104. (W)

NUR 106 Maternal-Infant Health I **4 0 4**

A course designed to provide the student with opportunities to acquire knowledge and understanding needed to render safe and effective nursing care to the maternity patient, the newborn infant, and the infant's family. Prerequisite: NUR 101 through 105. Corequisite: NUR 107. (S)

NUR 107 Maternal-Infant Health I Lab **0 6 2**

A series of objective-centered sessions using selected patients in the obstetrical units of area hospitals to develop skills needed to apply the knowledge learned in NUR 106. Experiences in selected clinics are planned to stress the scope of maternal-infant health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 106. (S)

NUR 108 Child Health Nursing I **4 0 4**

A course providing the student with opportunities to acquire the knowledge and understanding needed to render safe and effective nursing care to the child from infancy through adolescence and to his/her family. Prerequisite: NUR 101 through 105. Corequisite: NUR 109. (S)

NUR 109 Child Health Nursing I Lab **0 6 2**

A series of objective-centered sessions using selected patients in area hospitals to develop the skills needed to apply knowledge learned in NUR 108. Experiences in selected clinics are planned to stress the scope of child health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 108. (S)

NUR 110 Medical-Surgical II **6 0 6**

The study of diseases/disorders of body systems. The etiology, diagnosis, treatment, and nursing care during these conditions of illness are covered. Nursing care of patients with disorders/diseases of the reproductive, gastrointestinal, nervous, musculoskeletal, and respiratory systems are included. Principles related to the care of patients with long-term illness, in geriatric situations, as well as the patient with cancer and the dying patient are introduced. Patient teaching and rehabilitation are stressed as intrinsic aspects of the nursing process. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 111. (SS)

NUR 111 Medical-Surgical II Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 110. Functioning as a member of the nursing team and the utilization of all health team members to promote and achieve total patient care are important aspects of this experience. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 110. (SS)

NUR 112 Nursing Seminar I **2 0 2**

A study of the legal and ethical responsibilities, professional organizations, and job opportunities availiable to the licensed practical nurse. The North Carolina Nurse Practice Act is emphasized. Applications for writing the State Board of Nursing Licensing Examination for Practical Nurses are completed and submitted at the end of this course. The seminar method of instruction is utilized and opportunity made for discussion of special interests of the students. Prerequisite: NUR 101 through NUR 109. (SS)

NUR 200 Psychiatric Nursing **6 0 6**

This course focuses on the application of the nursing process, effective communication techniques, the therapeutic use of self, and the role of the nurse in providing care to psychiatric clients. Etiological factors, behavioral characteristics, symptomatology, and treatment modalities associated with selected disorders are examined. Prerequisite: all NUR 100 courses. Corequisite: NUR 201. Prerequisite or Corequisite: PSY 213. (SS/W)

NUR 201 Psychiatric Nursing Lab **0 9 3**

A series of objective-centered learning experiences using selected patients in psychiatric units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 200. Synthesis and integration of skills acquired in all other courses is expected. Prerequisite: all NUR 100 courses. Corequisite: NUR 200. Prerequisite or Corequisite: PSY 213. (SS/W)

NUR 202 Maternal-Infant Health II **3 0 3**

A study of nursing intervention during the maternal cycle including intensive care of premature infants. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgemental, and manipulation skills, drawing from knowledge acquired through related courses, is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: all NUR 100 courses, BIO 135. Corequisite: NUR 203. Prerequisite or corequisite: BIO 108, 109. (F/S)

NUR 203 Maternal-Infant Health II Lab **0 6 2**

A series of objective-centered learning experiences using selected patients in the maternity units of area hospitals and other health agencies to develop the skills needed to demonstrate the knowledge learned in NUR 202. Prerequisites: all NUR 100 courses. Corequisite: NUR 202. Prerequisite or corequisite: BIO 108, 109. (F/S)

NUR 204 Child Health Nursing II **3 0 3**

A study of nursing intervention during childhood from infancy through adolescence. Empasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses, is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: all NUR 100 courses, BIO 135. Corequisite: NUR 205. Prerequisite or corequisite: BIO 108, 109. (F/S)

NUR 205 Child Health II Lab **0 6 2**

A series of objective-centered learning experiences in the pediatrics units of area hospitals and other related health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 204. Prerequisites: all NUR 100 courses, BIO 135. Corequisite: NUR 204. Prerequisite or corequisite: BIO 108, 109. (F/S)

NUR 206 Medical-Surgical III **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illnesses. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems are stressed. Prerequisite: all NUR 100 courses. Corequisite: NUR 207. Prerequisite or corequisite: BIO 108, BIO 135. (W/SS)

NUR 207 Medical-Surgical III Lab **0 15 5**

A comprehensive study of biological, social, and emotional components of frequently occuring illnesses. Orientation will be based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems are stressed. Use of medical-surgical units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 206. Opportunity is provided for using previously acquired knowledge in planning and implementing nursing care for groups or individuals. Prerequisite: all NUR 100 courses. Corequisite: NUR 206. Prerequisite or corequisite: BIO 108, BIO 135. (W/SS)

NUR 208 Medical-Surgical IV **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illness with emphasis upon the rehabilitative and adaptive processes. Prerequisite: all NUR 100 courses, NUR 206, NUR 207. Corequisite: NUR 209. Prerequisite or Corequisite BIO 109. (S/F)

NUR 209 Medical-Surgical IV Lab **0 18 6**

A series of selected learning experiences to assist the student in the development of the ability to formulate and utilize previously and concurrently acquired skills so that comprehensive planning and competent application of cognitive, affective, and manipulative skills are employed in the care of the patient(s) in all age groups and in a variety of situations. The student is given the opportunity to plan, direct, and evaluate total patient care for groups and/or individuals using the instructors as the principle resource. Prerequisite: all NUR 100 courses, NUR 206, NUR 207. Corequisite: NUR 208. Prerequisite or corequisite BIO 109. (S/F)

NUR 210 Seminar II **3 0 3**

A study of the role and responsibilities of the registered nurse. The leadership role and various methods of managing patient care are emphasized. Current trends, transitional concerns, employment opportunities, and continuing education are stressed. The seminar approach is utilized to meet the individual needs of the students. Corequisites: NUR 210 is taken with the final quarter nursing courses (this may be NUR 208/209 or NUR 202-205). (F)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 Orientation to OTA Program and Introduction to Occupational Therapy 3 3 4

A two-week pre-quarter orientation for students entering program. Includes field visits to clinical sites providing occupational therapy services for the purpose of identifying roles of occupational therapy personnel and introduction to medical terminology and health care services. (SS/F)

OTA 102 Occupational Therapy Theory I 3 3 4

An introduction to the art and science of occupational therapy including the history of the profession, practice arenas, and discussion of the role of the Association. Emphasis will be on identification of roles and responsibilities of the COTA, standards of practice, socio-cultural influences affecting occupational therapy, and accountability and ethics. Level I field work experiences to be incorporated into lab sessions. Discussion and field experiences will highlight relationship of occupational therapy to other health services. (F)

OTA 103 Major Crafts and Their Application 1 4 3

A course devoted to the development of skills in major crafts including woodworking, ceramics and leatherwork. The use of and adaptation of these activities in therapeutic programs will be integrated with the learning of skills. Care and maintenance of equipment and materials will be emphasized. Prerequisites: OTA 108.

OTA 104 Occupational Therapy Theory II 3 2 4

A study and analysis of developmental theory as it applies to daily life tasks and activities. Concepts of activity analysis, adaptation, and role mastery will be reviewed in conjunction with normal growth and development. Appropriate screening instruments for each developmental level will be utilized during fieldwork. Prerequisites: OTA 102 and PSY 210. (W)

OTA 105 Occupational Therapy Theory III 3 2 4

A course emphasizing the occupational therapy treatment process. Basic principles of screening, program planning, and implementation of programs for clients with physical disabilities will be stressed. Programs for prevention and remediation of health disorders will be developed and analyzed from actual field experience case studies. Professional skills of information gathering, goal setting, and selection and planning use of occupational therapy techniques will be mastered by the student. Prerequisites: OTA 104, BIO 108. (S)

OTA 106 Occupational Therapy Media I 1 4 3

A course emphasizing the value of activities in life and in occupational therapy. Concepts of activity analysis will be introduced. Corequisite: OTA 102. (F)

OTA 107 Medical Conditions 3 0 3

This is a study of disabling conditions commonly encountered in occupational therapy. Included are causes, symptoms, prognosis and treatment methods of physical conditions. Prerequisite: BIO 108. (S)

OTA 108 Occupational Therapy Media II **1 4 3**

A course devoted to the development of skills in basic sewing, weaving and needlecrafts. The use and adaptation of these activities in therapeutic programs will be integrated with the learning of skills. Fabrication of adaptive equipment will be introduced. Prerequisite: OTA 106. (S)

OTA 201 The Mature Years—Gerontology **3 2 4**

A course focusing on the latter half of the life span including concepts of the aging process, retirement, and physical, emotional, and social adjustment. Emphasis will be on occupational therapy programming for geriatric citizens living in various environments. Field experiences will include visiting and participating in geriatric programs. Prerequisite: OTA 105. (W)

OTA 202 Occupational Therapy IV **3 3 4**

The occupational therapy treatment process for clients with psychosocial disorders will be stressed. Programs for prevention and remediation of psychiatric disorders will be developed and analyzed from case studies. Professional skills of information gathering, goal setting, and selection and planning use of occupational therapy techniques will be mastered by the student during Level I fieldwork. Prerequisite: OTA 105. (F)

OTA 203 Occupational Therapy Theory V **3 2 4**

This course is designed to provide the student with basic information on the contribution of the OTA to program administration and support. Current issues in occupational therapy will be explored. Prerequisite: OTA 202. (W)

OTA 204 Occupational Therapy Fieldwork **0 40 13**

Full-time (40 hours a week) supervised fieldwork in a prearranged clinical site. Emphasis will be on the application of academically acquired bodies of knowledge. The student will be provided with indepth experiences in and responsibility for delivery of services to clients/patients with appropriate occupational therapists, registered, supervision leading to the performance level expected of an entry-level occupational therapy assistant. (OTA 204 includes two placements in appropriate centers.) Prerequisites: All OTA courses. (S)

OTA 205 Optional Occupational Therapy Fieldwork **0 40 13**

A placement designed for those students who wish to have field experiences above the minimum required in OTA 204. These may be in specialized service delivery areas or in traditional areas as used in OTA 204. Prerequisites: All OTA courses. (SS)

PHILOSOPHY

PHI 201 Introduction to Philosophy **3 0 3**

A study of various alternative philosophies concerning the nature of truth, ethics, happiness, society, and religion. Emphasis is placed on the insights of the great philosophers as well as assisting the student in developing a personal philosophy of living. (F/S/S/SS)

PHI 202 Logic **3 0 3**
An introductory study of the principles and problems of reasoning, the analysis and evaluation of arguments in philosophical, legal and political issues. (D)

PHOTOGRAPHY

PHO 101 Basic Photography **2 2 3**
A study of fundamental photographic equipment and materials. Both still and movie camera principles are studied in relation to the field of design and visual communications. (F/W/S/SS)

PHO 201 Advanced Photography **2 2 3**
A course in advanced photograhic techniques and materials. Participation in studio lighting, copying, and photography of various objects of artificial light permit a wider use of photography in visual communications. Prerequisite: PHO 101 or demonstrated skill. (D)

PHYSICAL EDUCATION

PED 101 Physical Activities for Children **2 2 3**
A recreation course based on games for children beginning with the preschool child. The student will explore activities and materials for promoting the physical development of young children. Special emphasis will be on body movements, exercise, and dance. Various instructional techniques used in music, drama, and physical education will be emphasized. (S)

PED 110 Archery **0 2 1**
A course designed to teach the student the fundamentals, skills, history, and rules. Special emphasis is on safety practices, etiquette, and value carry over into a useful leisure time activity. (F)

PED 111 Badminton **0 2 1**
A course which deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game. (W)

PED 112 Bowling **0 2 1**
A study of the fundamentals of ball selection, grips, stance, and delivery along with rules, history, and scoring. Special emphasis is placed on spot bowling. (W)

PED 113 Golf **0 3 1**
A course designed for teaching the grips, stance, and use of various clubs, along with history and etiquette of play. (F/S)

PED 114 Physical Fitness **0 3 1**
An introduction to physical activity with emphasis being placed on the cardiovascular system, strength, and efficiency in executing basic skills which may arise in play and daily living. (F/W/S/SS)

PED 115 Tennis **0 3 1**

An elementary course in the history, rules, and regulations. Emphasis is placed on the fundamentals of the game with prime consideration given to strokes and footwork. (F/S/SS)

PED 116 Beginning Skiing **0 3 1**

An elementary course for the non-skier designed to get the individual to the point of skiing proficiently. (W)

PED 117 Beginning Swimming **0 2 1**

A course designed for the non-swimmer. Includes basic strokes and water safety based upon American Red Cross programs of instruction. (S/SS)

PED 118 Aerobic Dancing **0 3 1**

A physical fitness program which offers complete body conditioning. Dance patterns with unique musical arrangements are utilized to promote toning and strengthening of muscles and cardiovascular fitness.

PED 119 Tumbling and Gymnastics **0 2 1**

A course dealing with the beginning of tumbling, stunts, and gymnastics. Special emphasis is placed on the safety of these activities and correct body balance and form. (W)

PED 125 Basic Backpacking and Climbing **0 2 1**

A course designed to introduce the student to the sport of backpacking and rock climbing. (D)

PED 130 Basketball **0 2 1**

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball. (W)

PED 132 Soccer **0 2 1**

A course covering the fundamental skills, history, rules, and strategy with emphasis placed on practice and execution of activity skills. (F)

PED 133 Softball **0 2 1**

The study of history, rules, skills, and strategy with emphasis on defensive play by positions. (S)

PED 134 Volleyball **0 3 1**

A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carry-over value of activity. (W)

PED 135 Canoeing **0 3 1**

A course including lectures and laboratory practices in the basic skills of lake and river canoeing. All basic strokes and fundamentals of canoe safety and rescue are emphasized. It is recommended that students be able to swim before registering for this course. (F/S/SS)

PED 136 River Canoeing **0 3 1**

The course is designed to teach the terminology, techniques and skills for whitewater canoeing. Trips will be scheduled on local rivers. Prerequisite: PED 135.

PED 141 Horseback Riding **0 2 1**

A course designed to acquaint students with the western style of riding, equipment, handling of horses, the aids, mounting, trail riding, and care of the horse. Emphasis is placed on the development of equestrian skills, safety, coordinated horse-rider balance, and proper care of horses. (F/S/SS)

PED 142 Advanced Horseback Riding **0 2 1**

A course designed to give the novice rider a more intense experience riding horses in a variety of specialized situations and to further acquaint the student with horses' behavior, equipment, the aids, and care of the horse. Emphasis is placed on the development of skills in jumping, rodeo games, and trail riding. Prerequisite: PED 141 or demonstrated skill. (S/SS)

PED 150 Wellness **1 3 2**

A course designed to explore health and fitness from the whole person perspective. Special emphasis will be placed on assessing physical condition and designing an individual program. (W/D)

PED 151 Modern Dance **0 2 1**

A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education. (W)

PED 152 Folk and Square Dance **0 2 1**

A course in the development and successful performance of dance skills in regional American folk dances. (W)

PED 154 Beginning Social Dance **0 2 1**

A course designed to provide students with the basic fundamentals of popular dancing. Provides the students with information which will help them enhance their social life and give them an appreciation for dancing. (F/W/S/SS)

PED 155 Advanced Social Dance **0 2 1**

A course designed to provide students with advanced fundamentals of popular dancing. All instruction is directed toward students' abilities to perform the movements with expertise. Stress is put on rhythm, appearance, and routine sequence. Prerequisite: PED 154 or approval of instructor. (F/W/S/SS)

PED 160 Individual Activity **0 2 1**

A course providing specialized activities approved by the physical education and recreation department for a particular student. (D)

PED 180 Personal and Community Health **3 0 3**

A course designed to develop an awareness of the personal, community, and worldwide importance of health. Special emphasis is placed on the physical, mental, and emotional aspects of the human body. Health problems, their causes and prevention are also stressed. This course may not be used as a substitute for required P. E. activity courses. (D)

PED 185 First Aid and Safety **3 0 3**

A course presenting the skills, techniques, and knowledge needed to have a safe environment. Adequate class time is reserved for practical demonstrations of first aid safety. Students are provided the opportunity to obtain the standard first aid certificate. This course may not be used as a substitute for required P. E. activity courses. (W)

PED 200 Intermediate Tennis **0 3 1**
A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance, and tennis strategy. Prerequisite: student must have passed beginning tennis (PED 115) with a grade of "C" or better or have the approval of the instructor.

PED 201 Introduction to Physical Education **3 0 3**
An introductory course to acquaint the student with the principles and philosopy of physical education. Special emphasis is placed on the sociological, physiological, and psychological objectives of physical education and the professional preparation essential to become a physical educator. (F)

PED 212 Kinesiology **3 2 4**
A study of human movement with pratical application of biomechanical principles. It includes specialized study of the human musculoskeletal and nervous systems. Prerequisite: BIO 108. (F)

PED 213 Advanced Golf **0 2 1**
A course designed to further develop the skills learned in beginning golf. The majority of class time is spent at a local golf course. Prerequisite: PED 113 or approval of instructor. (F/S/SS)

PED 215 Advanced Tennis **0 2 1**
A course designed to develop the skills learned in PED 115 with special emphasis on singles and doubles strategy and tournament play within the class. Prerequisite: PED 115 or approval of instructor. (F/S/SS)

PED 216 Advanced Skiing **0 2 1**
A course designed for advanced students to perfect skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor. (W)

PHYSICAL SCIENCE

PHS 101 Man and His Physical Environment **3 2 4**
An integrated perspective of the physical sciences with study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, and structure and utilization of atoms. Covers the role of science in the development of civilization. (F/SS)

PHS 102 Man and His Physical Environment **3 2 4**
A continuation of PHS 101. Prerequisite: PHS 101. (W/SS)

PHS 103 Man and His Physical Environment **3 2 4**
A continuation of PHS 102. Prerequisite: PHS 102. (S/SS)

PHYSICS

PHY 101 Physics: Work, Energy, Power **3 2 4**

A study of the major areas of work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. (F)

PHY 102 Physics: Properties of Matter **3 2 4**

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws, and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: PHY 101. (W)

PHY 103 Physics: Electricity **3 2 4**

A study of the basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by friction, electricity by chemical action, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major topics in the course. Prerequisites: PHY 102, MAT-T 102. (S)

PHY 106 Applied Mechanics **5 0 5**

A study of the concepts and principles of statics and dynamics. Includes parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Also covers concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Prerequisites: MAT-T 103, PHY 102. (S)

PHY 107 Physics **3 2 4**

A course emphasizing the fundamentals of electrical and radiation physics and the basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisites: MAT 101, MAT 111, or MAT-T 105. (W)

PHY 108 Physics **3 2 4**

A course emphasizing the fundamentals of electrical and radiation physics and basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: PHY 107. (S)

PHY 109 Radiologic Physics **3 2 4**

A course to provide radiology technology students with a third quarter of radiologic physics as a science elective. To be offered during the summer months and will require the same text as the preceding two quarters. Covers radioactivity, artificial radionuclides, health physics, and special radiographic equipment. Prerequisites: MAT 101, PHY 107, and PHY 108. (D)

PHY 110 Ultrasound **3 2 4**

A course to provide radiology technology students with one quarter of instruction in the physical principles underlying ultrasound diagnosis. To be offered during the summer months. Covers wave characteristics in general, properties of sound waves, ultrasound transducers, characteristics of ultrasound beams, interaction of ultrasound with matter, ultrasound imaging techniques, and Doppler techniques. Prerequisite: PHY 109. (D)

PHY 120 Energy: Sources, Needs, Hazards **3 2 4**
A course designed to increase the student's awareness of energy, both as a physical concept and as an economic issue. Covers topics including the properties, sources, and uses of energy; the economics of energy production; and the hazards associated with energy consumption. Students also learn how to perform energy conversion and cost calculations. Prerequisite: MAT 091. (D)

PHY 211 General Physics I **3 2 4**
A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechanics, sound, and heat are included. (F)

PHY 212 General Physics II **3 2 4**
A continuation of PHY 211 including magnetism and electricity. Prerequisite: PHY 211. (W)

PHY 213 General Physics III **3 2 4**
A continuation of PHY 212 including light, optics, and modern physics. Prerequisite: PHY 212. (S)

PHY 1101 Applied Science **2 2 3**
An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids and gases; and basic electrical principles. Prerequisite: MAT 1101. (W)

PHY 1101A Automotive Applied Science **2 2 3**
An introduction to physical principles and their applications in the automobile industry. Topics include measurement; properties of solids, liquids, and gases; and basic electrical principles. Prerequisite: MAT 1120. (W)

PHY 1102 Applied Science **2 2 3**
The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101. (S)

PHY 1102A Automotive Applied Science **2 2 3**
The second of two courses of applied physical principles. Topics include heat and thermometry, force, motion, work, energy, power, and simple machines. Prerequisite: PHY 1101A. (S)

PHY 1110 Applied Science for Plumbers and Welders **2 2 3**
This course is designed to instruct the student in basic scientific principles which relate to the plumbing/welding industry. Topics to be studied include measurement, properies of solids and gases and basic electricity. (S)

PLUMBING AND PIPEFITTING

PLU 101 Basic Plumbing and Pipefitting **2 6 4**
A study of basic plumbing procedures to include measuring and threading

pipe, installing various fittings and joints, designing simple supply and drain systems and similar projects. Emphasis will be given to practical procedures and use of industrial type projects using commercial tools and equipment. Flow characteristics of various commercial products will be studied and material requirements for these products will be emphasized. (SS)

PLU 1101 Plumbing I **4 12 8**
The students are introduced to tools, fittings, and equipment used by plumbers; and acquainted to the basic facts and fundamentals of plumbing and pipefitting. (F)

PLU 1101A (Part-time) **2 6 4**

PLU 1101B (Part-time) **2 6 4**

PLU 1102 Plumbing II **4 12 8**
Plumbing II covers the installation of water distribution systems beginning with the source of supply and continuing with piping and sizing of piping. The heating storage and circulation of hot water is covered. Sewage waste and venting are studied. (W)

PLU 1102A (Part-time) **2 6 4**

PLU 1102B (Part-time) **2 6 4**

PLU 1103 Plumbing III **4 12 8**
This course presents the differences in materials and styles of lavatories, bathtubs and sinks. This course also presents the many ways that these fixtures can be installed. Gas piping and venting installation will also be designed and sized. Prerequisite: PLU 1102 or instructor approval. (S)

PLU 1103A (Part-time) **2 6 4**

PLU 1103B (Part-time) **2 6 4**

PLU 1104 Plumbing IV **4 12 8**
The principles of steam and hot water boiler operation and installation are covered in Plumbing IV. Equipment used in heat transmission such as radiators, coils, convectors and interconnecting piping systems will be studied in this course. Process piping for industrial users will also be included. Prerequisite: PLU 1102, PLU 1103. (SS)

PLU 1104A (Part-time) **2 6 4**

PLU 1104B (Part-time) **2 6 4**

PLU 1105 Plumbing Code **3 0 3**
The advanced plumbing student will be instructed in detail in the North Carolina Plumbing Code. A knowledge of the code, location of rules, articles and all graphs and tables will be studied. (SS)

POLITICAL SCIENCE

POL 201 American Federal Government **3 0 3**
A study of the structure and function of the national government with emphasis on current political affairs. (W)

POL 203 Government—State and Local 3 0 3

A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Includes problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention is given to North Carolina. (F)

PSYCHOLOGY

PSY 101 Industrial Relations 1 2 2

A course dealing with a person's socialization process and his/her relationship to others. Contains an examination of one's personality development and his/her occupational/career interest. Relationships with customers and business associates may be emphasized for vocational programs. (D)

PSY 201 General Psychology 3 0 3

A survey of psychology as the science of human behavior including theories and application of learning, physiological psychology, sensation and perception, individual differences, and social forces. (F/W/S/SS)

PSY 202 General Psychology 3 0 3

A continuation and expansion of PSY 201 to include group behavior, motivation, cognition, psychopathology, psychotherapy, and scientific methods. Prerequisite: PSY 201. (D)

PSY 203 Psychology of Adolescence 3 0 3

An overview of social-psychological conditions of adolescence in the Western world. General areas covered are description of adolescence, formative influences, behavior settings and problem areas. (W/S)

PSY 204 Child Behavior 3 0 3

An application of social learning theory to child behavior with emphasis on the acquisition, retention, and extinction of behavior through preadolescence. (S)

PSY 205 Personality and Adjustment 3 0 3

The study of the whole person which permits the learner to review the varied psycho-social factors that influence personality development and maintenance while, at the same time, being given the opportunity to experience personal growth and increased awareness of his/her personal-social life. (D)

PSY 206 Interpersonal Skills 3 0 3

A course providing an opportunity for the learner to acquire self-management skills and to increase his/her level of competence in interactions with others. Specific areas covered are communications, conflicts, cooperation, use of social power, and the application of social learning principles. (F/W/S/SS)

PSY 209 Human Sexual Behavior 3 0 3

A study of physiological, social, and interpersonal aspects of sex and sexual behavior, to include the human sexual system, the sex act, attitudes and behavior, and love and intimacy. (D)

PSY 210 Human Growth and Development 3 0 3

A presentation of the interaction of maturational and environmental factors in the development of the individual from conception to death; i. e., pre-natal and birthing influences; physical, cognitive and social development; adulthood and aging processes. Prerequisite: PSY 201. (F/W/S/SS)

PSY 213 Abnormal Psychology 3 0 3

An introduction to abnormal behavior—behavior that is detrimental to one's health, growth, or human function. Particular attention is given to personal-social interaction. Prerequisite: PSY 210.

PSY 215 Introduction to Exceptional Individuals 3 0 3

A course designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. Prerequisite: PSY 201. (W)

RADIOLOGY

RDT 109 Clinical I 0 12 4

A clinical course providing practical experience in the hospital by including an orientation to the hospital, basic patient care, transportation, radiation protection procedures and professional ethics. The student will become competent in radiographic examinations of the chest, abdomen, and upper extremities. The student will also have the opportunity to review radiographic anatomy by critiquing radiographs. (F)

RDT 110 Introduction to Radiologic Technology 2 0 2

A course designed to give an introduction to the field of radiologic technology. Special attention is given to the historical development of Radiologic Technology and the key organizations/agencies which affect it. This course introduces the student to program guidelines, professional behavior and ethics and basic principles of radiation. (F)

RDT 111 Radiographic Procedures I 5 4 7

A study in radiographic anatomy and proper positioning of the chest, abdomen, upper extremity, shoulder girdle, lower extremity amd pelvis. This course also provides an opportunity for the student to gain practical experience by simulation through lab assignments. (F)

RDT 112 Basic Patient Care 1 4 3

A course designed to present the basic principles of patient care with particular emphasis on those procedures required in the radiology department. (F)

RDT 113 Radiographic Procedures II 5 4 7

A study in radiographic anatomy and proper positioning of the cranium, facial bones, mandible, sinuses, complete spine, bony thorax and mammary gland. This course also provides an opportunity for the student to gain practical experience by simulation through lab assignments. Prerequisite: RDT 111. (W)

RDT 114 Clinical II 0 15 5

A course providing practical experience in the hospital by including the processing of radiographs, utilizing principles of exposure, critiquing radiographs, identifying and manipulating equipment and demonstrating good patient care, professional ethics and protection methods. The student will become competent in radiographic examinations of the shoulder girdle, lower extremity, pelvis and basic skull routines. Prerequisites: RDT 110, RDT 111, RDT 112. (W)

RDT 115 Introduction to Principles of Exposure **1 2 2**

An introductory course presenting the basic concepts and principles necessary for formulating radiographic exposure. Areas covered include factors affecting quality, conversion factors and computation of exposure variables. Prerequisites: RDT 110, MAT 101. (W)

RDT 116 Radiographic Procedures III **2 2 3**

A study in radiographic positioning, basic care procedures and precautions, technical factors and structures shown for the immobile trauma patient's cranium, facial bones, vertebral column, pelvis, lower extremity, shoulder and upper extremity. This course also provides a study in radiographic anatomy, positioning, patient care, contrast media, room prep and technical considerations for radiography of the esophagus, stomach and small and large bowel. Prerequisite: RDT 113. (S)

RDT 117 Clinical III **0 24 8**

A course providing practical hospital experience, especially in the areas of fluoroscopic, mobile and surgical radiography. The student will have the opportunity to improve patient care; learn radiation protection and exposure skills; become competent in radiographic examinations of the skull and vertebral column; and critique radiographs. Prerequisites: RDT 113, RDT 115. (S)

RDT 118 Radiographic Evaluation **1 2 2**

A course presenting the controlling factors of radiographic quality. Areas covered include definition, distortion, density, contrast and their controlling factors. Prerequisite: RDT 115, RDT 110. (S)

RDT 119 Radiologic Physics and Equipment **3 0 3**

A course providing the fundamental concepts of the physical principles of radiologic technology. Areas covered include basic circuitry, rectification, single and three phase generators, x-ray tubes and x-ray production. Prerequisites: PHY 107, RDT 115, RDT 110, MAT 101. (S)

RDT 120 Imaging Modalities **1 2 2**

An introduction to the basic terminology, theory and clinical application of imaging modalities other than conventional radiography. Includes a presentation on computed tomography, diagnostic ultrasound, nuclear medicine, polaroid, thermography and xeroradiography. The student will have the opportunity to observe these modalities at the proper clinical site. (SS)

RDT 121 Clinical IV **0 24 8**

A course providing practical hospital experience in emergency radiographic procedures by requiring the student to experience clinical assignments other than first shift-weekdays. Special emphasis is placed on radiography of the immobile trauma patient. Prerequisites: RDT 116, RDT 118, RDT 119. (SS)

RDT 122 Radiation Protection I **2 0 2**

A study of the basic principles of radiation protection. This course includes information on the effects of ionizing radiation and the sources of these radiations. Prerequisites: RDT 120, RDT 110, HEA 103, BIO 105. (SS)

RDT 209 Clinical V **0 24 8**

This is the first second-level clinical course providing practical hospital experience with a continuation of practicing proper patient care, protection, positioning, professionalism, processing and exposure principles. Special emphasis is placed on pathology and becoming competent in radiographic examinations of the gastrointestinal and genitourinary systems. Includes a rotation in special procedures, nuclear medicine and radiation therapy. Prerequisites: RDT 120, RDT 122. (F)

RDT 210 Principles of Exposure I **1 2 2**

A study of the factors that affect radiographic exposure. This course will also include a review of exposure variables previously covered. Prerequisites: RDT 118, RDT 115, MAT 101. (F)

RDT 211 Radiographic Procedures IV **3 0 3**

A study in radiographic anatomy and positioning of the geniourinary system and structures demonstrated radiographically. Includes instruction on preparation of radiographic room, contrast media and patient for these procedures. Prerequisite: RDT 116. (F)

RDT 212 Special Procedures **3 0 3**

A course designed to provide the fundamental concepts of the most prevalent special radiographic procedures. Information covered will include such categories as anatomy, indications and contraindications, procedural methods, contrast medias used, equipment and patient positioning. Prerequisites: RDT 119, RDT 116, RDT 111, BIO 105. (F)

RDT 213 Principles of Exposure II **1 2 2**

The second course in the study of factors that affect radiographic exposure. This course will also include a review of exposure variables covered in RDT 210. Prerequisites: RDT 210, RDT 118, RDT 115, MAT 101. (W)

RDT 214 Clinical VI **0 24 8**

A course providing practical hospital experience to include all routine radiographic procedures and skills. Special emphasis is placed on identifying pathology and becoming competent in tomographic examinations and special procedures as designated. Prerequisites: RDT 210, RDT 211, RDT 212. (W)

RDT 215 Radiographic Procedures V **3 0 3**

A study of the principles of tomography and special considerations for radiography of the pediatric, geriatric and psychiatric patient including approach, immobilization and protections. Radiographic anatomy and positioning of the salivary glands will also be presented. Prerequisite: RDT 211. (W)

RDT 216 Principles of Exposure III **2 2 3**

The final course in the study of the factors affecting radiographic exposure. This course will culminate with a review of all the exposure variables previously covered in RDT 210, and 213. Prerequisites: RDT 213, RDT 210, RDT 118, RDT 115, MAT 101. (S)

RDT 217 Clinical VII **0 24 8**

This clinical course continues to provide practical hospital experience by allowing the student to improve skills in patient care, radiation protection, dark room, equipment manipulation, exposure principles, professionalism, radiologist assistance, anatomy and positioning skills. Special emphasis is placed on pathology, pediatric, geriatric and psychiatric radiography, imaging modalities, and radiographic evaluation. Prerequisites: RDT 213, RDT 215. (S)

RDT 218 Radiographic Procedures VI 2 0 2

A course emphasizing special radiographic positioning of the entire skeleton. A film critique and comprehensive review of radiographic anatomy and routine positioning procedures will also be included. Prerequisite: RDT 215. (S)

RDT 219 Radiation Protection II 2 0 2

A course designed to correlate more advanced knowledge of radiation protection. Areas covered will include MPD, detection and measurement, SI units, exposure, dose and the cardinal principles. Prerequisites: RDT 110, RDT 123. (SS)

RDT 220 Radiographic Processing and Quality Control 1 4 3

A course designed to cover the basic principles of radiographic film processing. Included in this course is the study of chemistries, film and the quality control necessary in maintaining the diagnostic image. Prerequisites: RDT 120, RDT 118. (SS)

RDT 221 Clinical VIII 0 24 8

The final clinical course providing practical hospital experience will allow the student to refine all radiography skills covered in the previous seven quarters. Special emphasis is placed on quality control in the radiology department and the completion of competency requirements. Prerequisites: RDT 216, RDT 218. (SS)

READING

NOTE: Reading Proficiency Requirements

In the interest of helping students succeed in their chosen curricula, all entering students at Caldwell Community College and Technical Institute are tested for reading proficiency. Any student who does not have the required reading proficiency level for his/her curriculum shall be advised to enroll in the reading course which is closest to his/her independent reading level.

RDG 090 Basic Reading I 1 3 2

A course designed for students whose independent reading levels range from zero to third grade. Basic word recognition, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory. (F/W/S/SS)

RDG 091 Basic Reading II 1 3 2

A course designed for students whose independent reading levels range from fifth to sixth grade. Sight vocabulary, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory or RDG 090. (F/W/S/SS)

RDG 092 Basic Reading III 1 3 2

A course designed for students whose independent reading levels range from seventh to eighth grade. Vocabulary, word attack, comprehension, and study skills are taught. Beginning techniques for improving reading speed are introduced. Completion of this course earns credit only toward a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 091. (F/W/S/SS)

RDG 093 Developmental Reading I **1 3 2**

A course designed for students whose independent reading levels range from ninth to tenth grade. Vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Completion of this course earns credit only toward a vocational or technical degree or diploma. Prerequisite: Reading Inventory or RDG 092. (F/W/S/SS)

RDG 101 Developmental Reading II **1 3 2**

A course designed for students whose independent reading levels are tenth grade or above. Advanced vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Prerequisite: Reading Inventory or RDG 093. (F/W/S/SS)

RECREATION

REC 101 Introduction to Recreation Services **5 0 5**

A course introducing the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services is included with visitations being scheduled to public, private, industrial, and institutional recreational programs. (F)

REC 102 Recreation and Special Populations **3 0 3**

A course designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of this course. (S)

REC 103 Recreation Programming **3 0 3**

A study of the underlying principles for effective recreation programming. Includes an overview of the variety of program areas associated with recreation with attention given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge to enable him to plan, organize, and provide leadership in program participation and to develop an understanding of the facilities and equipment necessary. This course also emphasizes the adaptation of activities and equipment for special groups. (W)

REC 104 Rehabilitation Services **3 0 3**

A course designed to aid the students' understanding of the therapies in a rehabilitation service. Special emphasis is placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable time is centered around guest speakers from the different therapies. (F)

REC 105 Areas and Facilities **3 0 3**

A course exploring the different types of indoor and outdoor recreational areas and facilities and their uses. Students study the principles in planning the dimensions and standards, maintenance, and operaton of areas and facilities such as parks, playgrounds, ball fields, centers, tennis courts, and swimming pools. Consideration is given to architectural barriers of areas and facilities needed by the handicapped participant. (S)

REC 106 Camping **5 0 5**

A course designed to develop an understanding of the operation of a camping program. Particular course emphasis is placed on camping for the ill and handicapped and the architectural barriers which often exist. Operational concerns varying from the use of volunteers to the maintenance of grounds are covered in this course. (S)

REC 121 Social Recreation **3 0 3**

A course to develop skill in planning social recreational activites. Party planning, special events, social games, quiet games, trips and picnics, and decorating are emphasized in this course. For practical experience, students have the opportunity to work with different age groups on community projects in social recreation. (W)

REC 201 Church Recreational Leadership **3 0 3**

This activity course will offer both general knowledge and specific recreational skills for ministers, church staff, youth leaders, church laymen and anyone interested in the area of church, social and recreational activities. The class will offer hands-on activities in music, song, leadership, dance, drama, arts and crafts, retreats, outdoor recreation and other special events. (D)

REC 202 Recreation Leadership **3 0 3**

A course to build basic skills in working with people, an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students have the opportunity to observe community leaders and to evaluate their effectiveness. (W)

REC 203 Water Sports **1 4 3**

A course intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention is given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games are included. The water skills are taught at a local pool. Students are afforded the opportunity to obtain a senior life saving certificate. (S)

REC 208 Intramural and Sports Management **0 6 2**

The laboratory experience consists of the planning, direction, and evaluation of intramural and athletic programming in educational and residential settings. Special emphasis will be placed on sports officiating, sports skill instruction, publicity, and other related activities in administering a recreation program. (F/W/S/SS)

REC 209 Field Work **0 9 3**

A required nine hours of field placement to be completed during the fifth quarter of the recreation leadership curriculum. This field work is under the supervision of a professional worker in the specific area of interest. (W)

REC 210 Field Work **0 15 5**

The sixth quarter of the recreational leadership curriculum is primarily practical work experience in the student's chosen area of interest. Fifteen hours of field work per week are devoted to this placement. This placement is under the direction of a full-time professional. (S)

REC 211 Recreation Seminar **1 0 1**

A course to prepare the student to become a professional recreation leader. Special emphasis is given to professional organizations, job applications, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty coordinates this seminar. Prerequisite: completion of 5 successful quarters in the recreation leadership curriculum. (S)

REC 215 Dance **1 4 3**

A skill course designed to develop specific talents in the area of recreational dance. Activity sessions stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the handicapped groups are also stressed. (F)

RELIGION

REL 201 Introduction to Old Testament **3 0 3**

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament. (F/W)

REL 202 Introduction to New Testament **3 0 3**

A critical examination of the rise and spread of the Christian faith as recorded in the New Testament with special emphasis in the ministries of Jesus and Paul. (W/S)

REL 203 World Religion **3 0 3**

An introduction to the major religions of the world, including Hinduism, Buddhism, Confuciansim, Taoism, Judaism, Islam, and Christianity. Emphasis is on their history, literature, teachings, and present day practices. (F/W/S/SS)

REL 204 Religion in America **4 0 4**

An objective study of religion movements in America today to include traditional and ethnic religions, supernatural phenomena, cults, generalized as well as non-religious concepts. The course is designed to be flexible in order to include current religious trends as they evolve. (D)

SCIENCE-ENVIRONMENTAL

SCI 100 Natural Environment **3 0 3**

A survey course combining the general areas of biology, chemistry, and physics. The content is intended to relate these three areas to each other as they influence everyday living. (D)

SELECTED TOPICS

Subject Area 199 **1-6 credit hours**

Selected topics in subject areas. (D)

SOCIOLOGY

SOC 101 Community Resources **3 0 3**

A study of the services extended to families in the local, state, and federal community with emphasis placed on one's being able to recognize and use local, state, and federal resources in achieving families' goals and implementing their value system. (D)

SOC 201 Introduction to Sociology **3 0 3**

A study of the fundamental principles and concepts of sociology with emphasis on contemporary American institutions in relation to technological change, ethnic groups, population trends, and social control. (F/S/SS)

SOC 203 Contemporary Problems and Social Issues **3 0 3**

A critical analysis of some of the major current social issues and problems in American society. (S/SS)

SOC 205 Marriage and the Family **3 0 3**

A study of family relationships, their forms and functions. Included in this study are cultural patterns, mate selection, sex roles, marital adjustment and maladjustment, child rearing, and the future of the American family. (F/W/S/SS)

SOC 206 Sociology of Sex Roles **3 0 3**

A course dealing with the changing sex roles in America today. The male and female roles are studied in terms of personality, communication skills, intelligence, socialization, status achievements, power, politics, and physical abilities. The purpose of the course is to examine sex roles as they affect or are affected by the total society. (D)

SPANISH

SPA 101 Elementary Spanish **3 2 4**

A study of the basic elements of Spanish with emphasis on listening comprehension, oral communication, pronunciation, and grammar. The beginning sequence is designed for students with fewer than two years of high school Spanish. A two-hour lab is required for beginning levels. (F)

SPA 102 Elementary Spanish **3 2 4**

A continuation of Spanish 101. Prerequisite: SPA 101. (W)

SPA 103 Elementary Spanish **3 2 4**

A study of verb tenses, vocabulary, and sentence patterns with emphasis on understanding and speaking the language. Prerequisite: SPA 102. (S)

SPA 201 Intermediate Spanish 3 0 3

A continuation of the study of Spanish with emphasis on oral communication, reading, writing, culture, and history. A lab is provided for those in intermediate levels needing or desiring extra work. Prerequisite: SPA 103 or two years of high school Spanish and approval of instructor. (F)

SPA 202 Intermediate Spanish 3 0 3

A continuation of intermediate Spanish with emphasis on listening and understanding, speaking, reading, and writing. Prerequisite: SPA 201. (W)

SPA 203 Intermediate Spanish 3 0 3

A continuation of intermediate Spanish with emphasis on the four basic skills and on grammar. Prerequisite: SPA 202. (S)

SPA 211, 212, 213 Advanced Spanish 3 2 3

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis is on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203. (D)

SPEECH

SPH 100 Interpersonal Communication 3 0 3

A course to help the student develop speaking skills in informal speaking situations. Emphasis will be placed on improving one's self-concept in relation to communication and working toward overcoming self-consciousness. Emphasis is placed on the communication process, interpersonal communication, non-verbal communication, and participating in small groups. (F)

SPH 101 Fundamentals of Speech 3 0 3

A study of oral communication with emphasis on speech theory, speech composition, preparation, and presentation. (F/W/S/SS)

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I 1 11 5

A study of the history and periods of furniture. Includes tools and equipment, hammer technique, staple gun technique, spring up methods, and webbing and burlap application. (D)

UPH 1112 Upholstery Materials and Methods II 1 11 5

A continuation of UPH 1111 and basic methods for inside and outside upholstery and cushion styles. Prerequisite: UPH 1111. (D)

UPH 1113 Upholstery Materials and Methods III 1 11 5

A course in the styles of furniture, including sofas, love seats, and recliners. Covers techniques in trimming band tufting and piping with continuous practice in these areas. Prerequisite: UPH 1112. (D)

UPH 1114 Upholstery Sewing I 1 11 5

Includes basic operations of the sewing machine and simple sewing techniques. (D)

UPH 1115 Upholstery Sewing II 1 11 5

A course covering advanced upholstery sewing, sewing matched stripes, making patterns, and other sewing techniques. Prerequisite: UPH 1114. (D)

UPH 1116 Upholstery Cutting I 1 11 5

A course providing job experience devoted to basic cutting techniques, how to measure frames, cutting with shears, and lay cutting. (D)

UPH 1117 Upholstery Cutting II 1 11 5

A course in making patterns, cutting matched patterns, and lining up and cutting striped patterns. Prerequisite: UPH 1116. (D)

WELDING

WLD 101 Welding Practices 3 0 3

A course of study designed to acquaint the student with the fundamentals of shop safety, shop procedures, and tool and welding machine use and care. During the course, knowledge and skill development include welding equipment and tools, oxyacetylene welding, gas welding of various type joints, and selection of proper welding materials used in the gas process. Related instruction develops symbol recognition. (F)

WLD 120 Welding, Oxyacetylene 2 6 4

An introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Covers welding procedures such as practice in puddling and carrying the puddle; running flat beads; butt welding in the flat, vertical and overhead position; brazing; and hard and soft soldering. Safety procedures in the use of tools and equipment are stressed through the program of instruction. The student performs mechanical testing and inspection to determine quality of the welds. (W)

WLD 121 Arc Welding 2 6 4

A study of the operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect weaknesses in welding. Safety procedures in the use of tools and equipment are emphasized throughout the course. Prerequisite: WLD 120. (S)

WLD 122 Commercial and Industrial Practice 2 3 3

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 120, WLD 121. (F/S)

WLD 1101 Auto Body Welding I **1 3 2**

A course providing welding demonstrations by the instructor and practice by students in the welding shop. Includes safe and correct methods of assembling and operating the welding equipment. Practice is given for bronze welding, fusion welding, fillet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. (F)

WLD 1112 Welding Codes and Inspection **3 0 3**

An introduction to the various types of tests and testing procedures used in testing the quality of the weld. Students perform the details of the test which gives adequate information on the quality of the weld. Tests to be performed include guided bend, tensile, magnetic partical, dye penetrant, X-ray, and hardness. Various sections of codes AWS, ASME, and API are studied according to the student's interest. (F)

WLD 1120 Welding Theory and Practice I **3 12 7**

A course dealing with the orientation to all oxyacetylene, shielded ARC shop equipment. Includes basic fundamentals of equipment set-up, safety demonstrations, practice procedures with group and individual demonstrations by the instructor. (F)

WLD 1120A (Part-time) **2 6 4**

WLD 1120B (Part-time) **1 6 3**

WLD 1121 Welding Theory and Practice II **2 18 8**

A course providing the student with a thorough understanding of ARC welding fundamentals and safety. Manual skills are developed to produce high quality ARC welds in all positions on mild steel. (W)

WLD 1121A (Part-time) **1 6 3**

WLD 1121B (Part-time) **1 6 3**

WLD 1121C (Part-time) **0 6 2**

WLD 1122 Commercial and Industrial Practice **3 9 6**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 1120, WLD 1121. (SS)

WLD 1122A (Part-time) **2 6 4**

WLD 1122B (Part-time) **1 3 2**

WLD 1123 Inert Gas Welding **4 12 8**

A course providing the student with a thorough understanding of tungsten inert gas ARC welding and metallic inert gas welding fundamentals and safety. Provides training to develop the manual skills necessary to make high quality welds in all positions. Prerequisite: WLD 1121. (D)

WLD 1123A (Part-time) 2 6 4

WLD 1123B (Part-time) 2 6 4

WLD 1124 Pipe Welding 3 12 7

A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121. (S)

WLD 1124A (Part-time) 2 6 4

WLD 1124B (Part-time) 1 6 3

WLD 1125 Certification Practices 3 6 5

A course involving practice in welding the various materials to meet certification standards. The student uses various tests, including the guided bend and the tensile strength tests, to check the quality of his/her work. Emphasis is placed on attaining skills in producing quality welds. Prerequisites: WLD 1121, WLD 1124. (SS)

WLD 1126 Advanced Metal Inert Gas Welding 2 9 5

An intensive study of advanced metal inert gas welding with emphasis on both production and general uses of this process. Studies are made in wire types, size, and selection. The student works with this type machine exclusively with practice in low and high carbon steels, stainless steels, and aluminum. Shielding gases used include carbon dioxide, argon, and various mixtures. Prerequisite: WLD 1123. (D)

WLD 1129 Basic Welding 1 3 2

A study of the basic characteristics of metals and equipment presented by means of audiovisuals and other educational media. Includes welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment are stressed. Practice is given in surface welding, bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. (F)

WLD 1130 Auto Body Welding II 1 3 2

A course providing welding instruction and shop demonstrations in modern welding methods used by mechanics and auto body repairmen to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. (W)

WLD 1131 Design of Welded Structures 3 6 5

A study of proper procedures used in the welding industry for fabrication and reinforcement. The student works with various methods of reinforcement and placement of reinforcing members. Studies are made of strengths of various metals, both ferrous and non-ferrous. Prerequisite: WLD 1122 or approval of instructor. (D)

WLD 1132 Advanced Tungsten Inert Gas Welding 2 9 5

A course consisting of working exclusively with this process with emphasis on proper selection of materials, filler rod, shielding gases, and electrode manipulation. There are exercises in cost estimating and job estimating. The majority of the work is in non-ferrous metals. Prerequisite: WLD 1123. (D)

WLD 1133 Operations of the Job Shop 5 3 6

A course dealing with the problems that are unique in the job shop. There are exercises in job estimating and cost estimating. Studies are made in material procurement and handling. Proper procedure for bidding on jobs is stressed. Prerequisite: WLD 1123. (D)

WLD 1134 Welding Power Supplies 3 1 3

A study of alternating current, direct current, and combination welding power supplies. Studies are also made of portable motor generator units. High frequency and remote control power supplies are covered with exercises in machine selection to match the operation to be performed. Prerequisite: WLD 1121. (D)

CONTINUING EDUCATION PROGRAM

GENERAL INFORMATION

WHAT IS IT?

Continuing Education provides an opportunity to:
(1)Finish high school
(2)Upgrade and improve present job skills
(3)Be trained while on the job
(4)Prepare for future employment
(5)Learn new hobbies and develop creative skills or talents for leisure activities
(6)Learn better home maintenance and repair techniques.

The continuing education department of Caldwell Community College and Technical Institute is an outreach service for Caldwell and Watauga counties. The program is designed to meet the needs and desires of the community by offering a wide variety of subjects taught at convenient hours in convenient locations in Caldwell and Watauga counties.

WHO CAN ENROLL?

Any individual who is 18 years of age or whose regular high school class has graduated. Persons between 16 and 18 years old who have special needs may enroll if they have the WRITTEN PERMISSION of the school system last attended. (Under certain conditions, the policy on page 9 will apply.)

WHAT DOES IT COST?

There is a non-refundable registration fee. The fee will depend upon the nature and purpose of each course or workshop. Textbooks or special materials may be purchased from the campus bookstore.

HOW CAN I ENROLL?

Persons can register for a class by attending the first session. Applicants are usually admitted on the "first come, first served" basis.

HOW LONG DO COURSES LAST?

Most courses last approximately 10 to 11 weeks, depending on the nature of the course. However, some classes are offered on a short term basis.

WHERE ARE CLASSES HELD?

Adult classed are held anywhere in Caldwell and Watauga counties where there are adequate facilities and equipment. In addition to the college campus, classes are held in community centers, public school buildings, churches, businesses, factories, and private homes.

WHEN ARE CLASSES HELD?

Day and evening classes are usually scheduled on a quarterly basis. Most classes meet once or twice a week, Monday through Friday, until the end of the course. Occassionally, weekend workshops and seminars are offered.

HOW DO I KNOW WHEN A COURSE I WANT IS OFFERED?

Information about classes is released each quarter through the local news media. Quarterly schedules are published and distributed by the college.

Information concerning course offerings may be obtained by calling the continuing education department at 396-3311 (Granite Falls), or 728-4323 (Lenoir), or 297-2185 (Boone).

WHAT CREDIT CAN I GET?

Most continuing education courses are noncredit. However, continuing education units (CEU) will be given for certain courses. These courses are designated and advertised as giving CEU credit prior to each quarter. Each quarter, teacher renewal credit classes are offered for those persons wanting to maintain their teaching certificate.

WHAT COURSES ARE OFFERED?

A partial list and description of courses available are listed in this catalog. However, if 12 or more people are interested in a subject not listed and a qualified instructor and suitable space are available, Caldwell Community College and Technical Institute will be happy to offer the course.

GENERAL ADULT OFFERINGS

Numerous continuing education noncredit classes are offered under the heading of general adult education. Many of these classes are taught off campus in recreation centers, schools, churches, and private homes.

General adult courses fall into the broad categories of the arts, crafts, job training and upgrading, practical personal skills, and special needs courses such as sign language for the deaf and driver's education for adults.

Special programs usually available on an annual basis include Great Decisions, social issues, comparative religions, and projects funded by the North Carolina Endowment for the Humanities.

Special classes for personal enrichment or in the special interest areas are available.

HOME ECONOMICS

Caldwell Community College and Technical Institute offers varied courses in the home economics area. Training and education courses are provided for the individual and the professional. Among general interest courses offered are the following:

- Clothing and Textiles
  - Beginning Sewing
  - Advanced Sewing
  - Tailoring
  - Children's Clothing Construction
  - Clothing and Pattern Alterations
  - English Smocking
  - Lap Quilting
  - Applique
  - Frame Quilting
- Foods and Nutrition
  - Microwave Cooking
  - Mexican Cookery
  - Vegetable Cookery
  - Breadmaking
  - Holiday Cooking
  - Japanese Cooking
  - Chinese Cooking
  - Indian Cooking
  - Buffets and Entertaining
  - Diabetic Cookery
  - Diet and Weight Control
- House and Home Furnishings
  - History of Furniture
  - Interior Design
  - Floral Arranging
  - Use and Care of House Plants
  - Furniture Refinishing

EARLY CHILDHOOD AND PARENT EDUCATION

Caldwell Community College and Technical Institute offers a variety of courses in Early Childhood/Family Life. Among courses included in these areas are the following:

- Prepared Childbirth
- Lamaze Refresher
- Pre-natal and Infant Care
- Parenting of Pre-Schoolers
- Working with the Young Child
- Child Nutrition and Behavior
- Parent Effectiveness Training
- Learning Through Play
- Adolescent Sexuality
- Small Group Approach to Growth and Learning
- Discipline:A Learning Tool
- Coping With Hyperactivity

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses are provided in Caldwell and Watauga counties in cooperation with the local public schools. Students receive one credit toward certificate renewal for each 10 hours of successfully completed work. Those classes offered for teacher renewal are approved through the public school administration on a quarterly basis and are listed on the quarterly schedule.

MANAGEMENT DEVELOPMENT PROGRAM

The management development program offered by Caldwell Community College and Technical Institute is designed to give the new manager or supervisor a headstart and to make a good manager better. The program is based on individual development instead of tests and grades. Managers and future managers should enroll in the program with the idea of improving their management skills.

Classes will be scheduled on a regular basis day or night, in the plant or at the college. Interested persons may preregister by calling the department of continuing education. In addition to the registration fee, there may be a small charge for books materials and supplies.

Each person completing 150 hours of instruction will receive a diploma in management development. An individual could earn the diploma in approximately one year by attending class one night per week during that year. Course offerings have included:

Art of Motivating People
Principles of Supervision
OSHA and First Aid
Human Relations and Motivation
Effective Communications
Economics and Controlling
Job Instruction Training
Labor Laws for Supervisors
Effective Writing
Effective Speaking
Speed Reading
Creative Thinking
Job Analysis Training
Employee Evaluation and Interviewing
Motion and Time Study

NEW AND EXPANDING INDUSTRY TRAINING

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs. In the endeavor to accomplish this objective, the college provides a training service for new and expanding industries in the community.

Subject to minimal limitations, the college, in cooperation with the Industrial Service Division of the N. C. Department of Community Colleges, will design and administer a special program for training the production manpower required by any new and expanding industry creating new job opportunities in North Carolina.

The major purposes of this program are to help new or expanding industry meet immediate manpower needs, and to encourage industry to develop long-range training programs to satisfy continuing replacement and retraining needs.

The program includes:

1. Consultation in planning training program needs
2. Selection and training of instructors who may be recruited from the company and/or outside sources
3. Payment of instructors' wages
4. Provision of suitable space for a temporary training facility
5. Assumption of installation costs of equipment in temporary training facility
6. Payment of one-half the cost of nonsalvageable materials expended in the training program.

SKILL TRAINING PROGRAMS

Caldwell Community College and Technical Institute's continuing education division offers courses designed either to upgrade job skills, to help persons develop new skills so that they may become more proficient in their vocations, or to train persons in new occupations, vocations, or job skills.

The courses are offered at a time and place convenient for the students, based on of the number of students, and the availability of facilities, and necessary equipment. These courses can also be offered in a plant or other places of business where certain skill training is needed.

Skill courses that may be offered by the institution cover a wide area of skills from office to plant.

APPRENTICESHIP PROGRAM

The apprenticeship program has been recognized as one of the leading methods for acquiring the skills and knowledge necessary to become job-skilled craftsmen. Apprenticeship programs are usually on-the-job training with related instruction. CCC & TI, in cooperation with the Apprenticeship Division of the North Carolina Department of Labor, Business and Industry, provides the related instruction for the apprenticeship. The college coordinates and conducts the related instruction for both registered and non-registered apprentices.

The apprentice may attend the classroom portion of training during the day or evening when the desired classes are offered. Some of the courses may be studied in the programmed method in the individualized instruction program.

An individual desiring entrance into such a program should consult his/her employer, apprenticeship representative, or the coordinator of industry programs at CCC & TI.

APPRENTICE LINEMAN'S TRAINING PROGRAM

The apprentice linemen's training program is designed to provide job training to men and women who work in public electric utilities, private electric utilities, telephone companies, municipalites, electric cooperatives, and other related lineman groups.

Listed below are the types of courses that are taught in the lineman's training school at Caldwell Community College and Technical Institute. Most of these classes consist of 40 hours of training and are usually completed in one week.

Apprentice Lineman I
Apprentice Lineman II
Apprentice Lineman III
Apprentice Lineman IV
Advanced Bucket School
Advanced Hot Stick School
Transformer School
Staking School
Underground Cable School

HEALTH RELATED TRAINING

The department of continuing education of Caldwell Community College and Technical Institute offers special courses in nursing and other health related occupations to the local community. Many of these special programs are administered in cooperation with the area health institutions and agencies. Course offerings have included:

Standard First Aid and Advanced First Aid
  CPR (Cardio-pulmonary Resuscitation)
  Nursing Assistant
  Health Care Technician
  R. N. Refresher Courses
  R. N. Management Training
  First Responder
  Medical Terminology
  Audio-Metric Testing
  EMT (Emergency Medical Technician)
  Paramedic Training
  Geriatircs Assistant
  Coronary Care
  Pediatric Nursing
In-service training for health professionals
  Well Being
  Stress Management
  Wellness Programs

SPECIAL NEEDS PROGRAMS

To meet the total educational needs of the community, Caldwell Community College and Technical Institute's department of continuing education offers courses for "special populations." Classes are conducted in sheltered workshops, rest homes, nursing homes, senior centers, treatment centers, prisons, and varied other meeting places where persons with special needs are located.

The types of classes offered are directly related to the needs of each group but overall represent a wide variety of offerings. These have included auto mechanics, small engine repair, compensatory education, crafts, pottery design and production, sewing, woodworking, art, quilting, vocational education, consumer education, culinary arts, reality orientation, certification in activity coordination, alcohol and drug abuse, nutrition, and job readiness.

FIRE SERVICE TRAINING

Caldwell Community College and Technical Institute offers fire service training to both volunteer and career firemen. This training program is designed to increase firemen's technical knowledge, to train fire service personnel in the latest techniques and methods of fire fighting, to improve their skills in fire-ground operations, and to expose them to a variety of fire situation experiences.

The training program is taken directly to the individual fireman. Training sessions are held in local fire departments allowing the individuals to be trained as an organized group utilizing equipment they would ordinarily use in controlling fire.

A certificate is awarded to each person successfully completing the course. Course offerings have included:

Industrial Fire Brigade
Portable Fire Extinguisher
Business Fire Safety
Firemanship Training (Beginning and Advanced)
Fire Apparatus
Hose Practice
Breathing Apparatus
Home Fire Safety
Pump Schools
Rope Practices

POLICE SCIENCE

Caldwell Community College and Technical Institute offers police science training to personnel of law enforcement agencies. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

North Carolina State Law requires that new police officers complete 240 hours of police science training within one year after employment. These courses are offered annually by the college. Courses are also offered to those officers who wish to upgrade job skills.

A certificate is issued upon completion of each course but credit cannot be transferred and applied toward an associate in applied science degree. Course offerings have included:

- Police Report Writing
- Police Firearms Training
- Police Science I
- Police Science II
- Weapons Safety
- Police Communications/Radio
- Introduction to Criminal Investigation
- Jail School
- Laws of Arrest
- Inmate Counseling
- Civil Disorder
- Cartridge Reloading
- History of Constitutional Law
- Chemical Tests/Alcohol

ADDITIONAL COURSES

If 12 or more people want to learn about a subject which is not currently offered, the college will make every effort to find a qualified instructor and offer the course anywhere in Caldwell or Watauga counties where suitable space is available. Requests may be made by calling the continuing educaton department 728-4323 (Lenior), 396-3311 (Granite Falls—Hickory), or 297-2185 (Boone).

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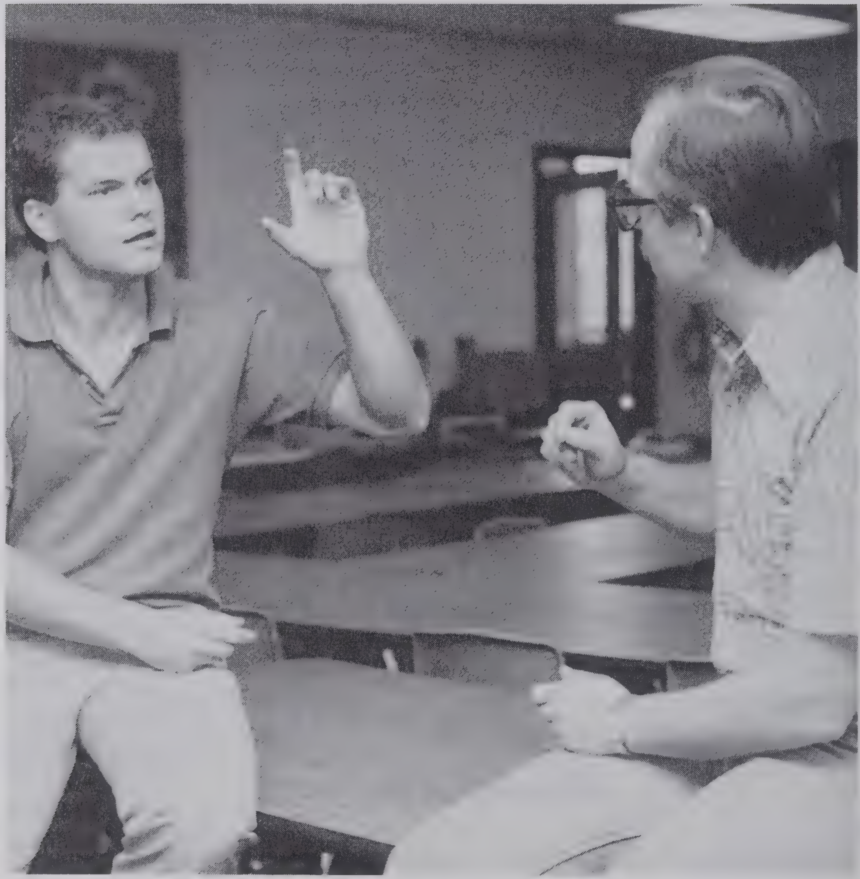

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